Hydro-Brake® Flow Control Series

Hydro-Brake® Agile Flow Control

Information for Designers and Specifiers.

Hydro International®

Hydro-Brake® Flow Control Series

Hydro International sets the standard in flow control technologies. Founded on more than 35 years of specialist water engineering, Hydro International's unrivalled flow control knowledge and outstanding technical design support give our customers complete reassurance of system performance and value.

When it comes to understanding, predicting and controlling the flow of water, Hydro International works with scientific rigour. Committed to precision in product development and manufacture, we partner with you to engineer the best possible water management solutions.

We give you the element of control

The Hydro-Brake® Flow Control Series is a versatile toolbox of precision-engineered devices for surface water control.

- Hydro-Brake® Flood Alleviation
- Hydro-Brake® Optimum
- Hydro-Brake® Agile
- Hydro-Brake® Orifice

Hydro-Brake® Agile Flow Control

Mitigate flood risk, reduce construction costs and meet the most stringent discharge consents.

Developers are facing increasingly demanding regulatory stipulations for discharging surface water drainage from their sites.

Drainage designs must usually satisfy the principles of Sustainable Drainage Systems (SuDS). Where adequate on-site infiltration is not possible, flood risks must be mitigated by attenuating stormwater to result in adequate flood storage.

Reduce Construction Costs

Building flood storage, whether above or below ground, leads to land-take and construction costs that are dependent on the rate at which excess water can be controlled and discharged. The lowest amount of storage results in the lowest construction costs.

Meet Stringent Discharge Consents

The Hydro-Brake® Agile flow control is the only flow control design that achieves a constant rate of discharge and therefore the minimum possible upstream storage. It is ideally suited to sites with stringent discharge consents where the space available for on-site attenuation is at a premium.

- Rapid drain-down provides resilience to subsequent rainfall events.
- Future-proof – simple adjustments possible for future changes in operating conditions.
- Repeatable, predictable maintenance regime.

Responsive Operation
For Reduced On-Site Storage

How it Works

A float arm rises and falls in response to the upstream water level and controls the operation of a gate that slides to open and close the outlet orifice. As a result, the orifice area is varied to deliver a constant discharge rate.

During low flows the water level remains below the float arm and the gate remains fully open. When the upstream water level reaches the maximum specified for the design storm event, the internal controls will stop the gate closing any further. The outlet orifice will remain in this position for any further increases in head.

A maximum discharge rate will be maintained as the water levels subside, so upstream storage is drained down rapidly to provide resilience for subsequent rainfall events. As the water level subsides, so the float returns to the resting position with the gate fully open.

- Precision-engineered using high-grade stainless steel.
- CE marked in accordance with the EU Machinery Directive (2006/42/EC).
- Supplied complete with all mechanical fittings for quick and easy installation.
- Manufactured in the UK, meaning shorter lead times for delivery to site.

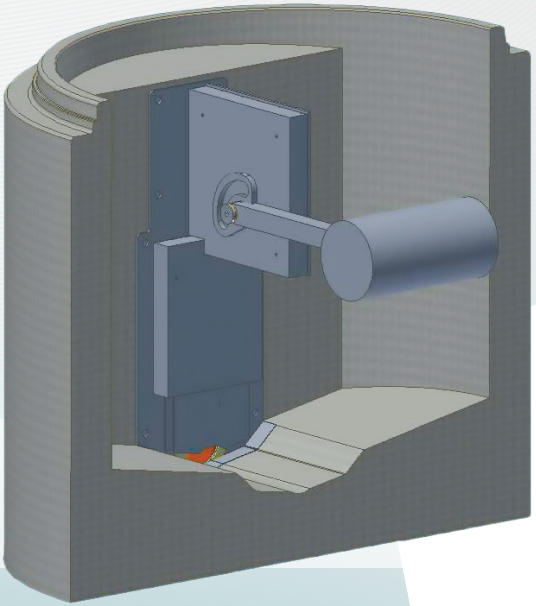
Easy to Maintain

The Hydro-Brake® Agile flow control is manufactured from high-grade stainless steel, with long-life, durable components. In the event of a blockage, an integrated release mechanism can be operated from surface level, enabling the gate to be fully opened and returned to its operating position.

Flexible Supply and Installation

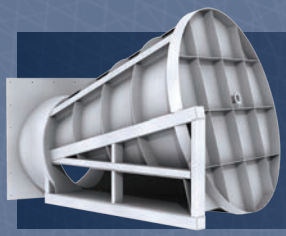
A Hydro-Brake® Agile flow control can be supplied pre-fitted in a precast reinforced concrete chamber for quick and easy installation on site.

A range of outlet pipe sizes is also available to suit site requirements. Once lifted into position, the connecting pipework can be installed and a cover slab installed. Further concrete rings can be added to achieve the overall depth of chamber required.



Hydro-Brake® Flow Control Series

A Flow Control For Every Site and Budget



Hydro-Brake® Flood Alleviation

The vortex-controlled solution to fluvial and watercourse flooding.

Hydro-Brake® Optimum

The vortex flow control with no equivalent. No moving parts, independently verified by BBA and WRc.

Hydro-Brake® Agile

Precision-engineered flow control giving reduced on-site storage for highly constrained applications.

Hydro-Brake® Orifice

The low-cost option for unconstrained sites.

Quality Manufacture

Hydro International's global reputation is built on expertise and excellence in water control and treatment. All our products are manufactured to the highest standards of quality control and subject to independent testing and validation wherever possible.

Design and Technical Support

Hydro International offers industry-leading knowledge and specialist understanding of the needs of designers and developers, backed by full technical and design support services.

Our design support team is available to advise on your stormwater drainage design, including the correct flow control specification choices.

Our technical centre can support you in your design development, detailed specification and output of drawings. We can also provide advice to ensure your installation goes smoothly.

Flow Control Hotline: 01275 337937
Email: flowcontrol@hydro-int.com

Engineering Nature's Way

Sustainable Drainage Systems (SuDS) are likely to be stipulated as the preferred method to prevent surface water flooding on a development. SuDS mimic natural drainage paths and processes and aim to get as close as possible to the hydraulic response of the catchment before it was developed.

Controlling water by infiltration is usually the first choice, but in up to two-thirds of sites, infiltration will be insufficient to deliver the necessary defence against flooding. Any excess water must be stored in underground tanks or above-ground features such as ponds or swales, until it can be safely released into a receiving watercourse or public sewer.

Visit: www.engineeringnaturesway.co.uk

Storage Costs

Developers need to minimise the contracting and equipment costs associated with building flood storage whilst ensuring regulatory compliance. The cost of a flow control is a small proportion of the total project costs, so investment in a precision-engineered device can result in considerable savings.

The Hydro-Brake® Agile flow control provides sustainable control of flood storage without the need for external power sources.

The Hydro-Brake® Agile flow control is a float-activated flow control that maintains a constant discharge to deliver precise flow control over a wide range of heads.

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What is HX?

HX is Hydro Experience. It is the essence of Hydro. It's interwoven into every strand of Hydro's story, from our products to our people, our engineering pedigree to our approach to business and problem-solving.

HX is a stamp of quality and a mark of our commitment to optimum process performance. A Hydro solution is tried, tested and proven.

There is no equivalent to HX.

For Flow Control Product and Design Advice:

Tel: 01275 337937
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Turning Water Around...®