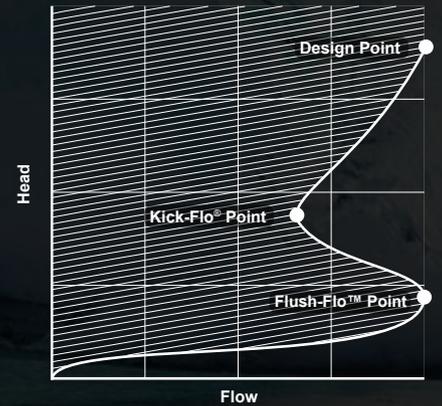




# Nature's Perfect Curve

Hydro-Brake Optimum<sup>®</sup>. There is no equivalent.



**Hydro**  
International 

A high-angle, wide-angle photograph of Earth's coastline from space. The image shows a vast expanse of blue ocean meeting a white, cloud-covered landmass. The horizon line is a smooth, continuous curve that spans the width of the frame. The lighting is bright, highlighting the textures of the clouds and the deep blue of the water.

**Inspired by  
nature and  
engineered  
with a perfect  
curve.**

# Nature's Perfect Curve



**There is no equivalent to the Hydro-Brake Optimum® when it comes to performance, cost-effective installation and through-life maintenance.**

At first sight, it may seem like any other vortex flow control. But when a Hydro-Brake Optimum® is specified for your drainage project, it will achieve hydraulic efficiency that cannot be matched by other vortex flow controls.

That's because Hydro-Brake Optimum® is sized to perfect the all-important hydraulic curve and therefore give you absolute reassurance of flood protection.

## No Compromises

Versatile, future-proofed, BBA and WRc certified, using Hydro-Brake Optimum® offers risk-free assurance that your surface water drainage will perform as it is designed to do.

Each Hydro-Brake Optimum® is sized by fine-tuning the head and discharge relationship to achieve an “absolute fit”. Rather than choosing from a range of pre-determined sizes, each unit is custom-designed to achieve the drainage objectives of your site.



# Optimum Value

**Relying on the superior performance of Hydro-Brake Optimum® does not mean higher costs for your project. On the contrary, it can help to minimise excavation and development cost.**

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## Reduced Stormwater Storage

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The increased hydraulic efficiency of Hydro-Brake Optimum® can reduce on-site stormwater storage requirements by up to 15% in comparison to other vortex flow controls. A lower storage volume means you can achieve:

- **Reduced construction and excavation costs**
- **Project time savings**
- **Reduced land use and opportunity cost savings.**

## Make SuDS Schemes Feasible

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As a passive flow control with no power or moving parts, Hydro-Brake Optimum® can help meet regulatory Sustainable Drainage Systems (SuDS) objectives for a site.

By reducing land take, the “kerb appeal” of natural SuDS features can be exploited with minimal commercial impact for developers.



Swale under construction at Berewood



Vegetated pond under construction at Berewood

# False Economy: Flood Risk

**It may be tempting to substitute a Hydro-Brake Optimum® for a cheaper competitor product, but any short-term cost saving is cancelled out by potential long-term problems.**

The consequences could be unforeseen maintenance work to rectify poor drainage performance before handover to the adopting authority. Further risks of flooding post-installation could be costly and further damage your company's reputation.

## Storage

Switching from a Hydro-Brake Optimum® to an alternative vortex flow control device can lead to inadequate storage capacity on-site, resulting in:

- **Increased flood risk (on-site and downstream)**
- **Premature flooding of the storage facility**
- **Unauthorised over-discharge from the site.**

## Clearance

Hydro-Brake Optimum® has outlets (clearances) up to 20% larger than competitor products to minimise the risk of blockages. Choosing an alternative flow control with smaller openings and outlets will lead to an increased risk of plugging that could cause flooding.

## Strength

A product required to withstand a deluge in the worst wet weather incidents needs to be robust, and the Hydro-Brake Optimum® is unmatched in its physical strength.

Made from high grade stainless steel, the Hydro-Brake Optimum® has been independently-verified to ensure it is capable of withstanding the potential high pressures you specify it for. Substituting for the inferior materials used by some suppliers can lead to structural failure.



With Hydro-Brake Optimum®



Substitute for Hydro-Brake Optimum®

# Making Life Easier

**Hydro-Brake Optimum® comes with a range of installation options and accessories to make construction and installation as simple as possible.**

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## Hydro-Brake® Chamber

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If you need a pre-fitted vortex flow control, the Hydro-Brake Optimum® is available ready installed into a purpose built, pre-cast, reinforced concrete chamber base (kite marked to BS EN 1917:2002).

The base comes with preformed benching and headwall, and is ready cored with holes to suit site requirements. Chambers are available in a variety of sizes, with additional features such as weir walls, high level overflows and penstocks.

## Mounting Options

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Where units are to be fitted on-site, we provide a variety of mounting options to suit the application:

- **Lugs**
- **Push-fit spigots**
- **Flat or curved mounting plates**
- **Penstock or slide mounts**
- **Removable units.**

All Hydro-Brake Optimum® units can also be supplied with an adjustable inlet to future-proof the device, allowing flows to be altered post-installation, to account for site expansion or climate change.



The Hydro-Brake Optimum® Chamber



Hydro-Brake Optimum® Mounting Options



**Sized to perfect  
the all-important  
hydraulic curve  
and therefore  
give you absolute  
reassurance of  
flood protection.**





## What is HX?

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**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.

## Hydro International

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