

**intesio**

Intelligent stormwater solutions by Wavin

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**Product Specification**

Our technical advisory team can advise on the most appropriate product for your application. To enable us to specify the correct product we will require the following information;

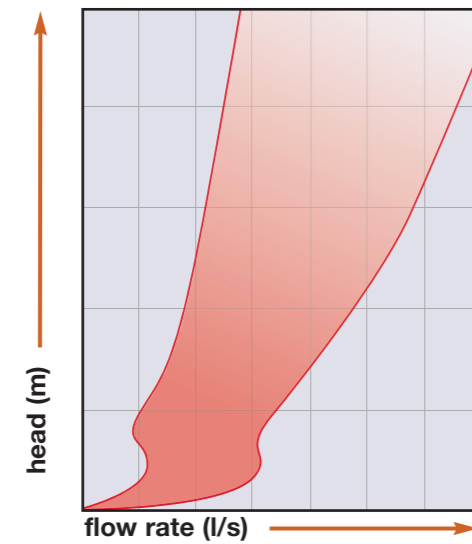
- Type of Application – Surface Water, Foul Water or Combined System
- Design Head
- Design Peak Discharge Rate
- Details of the proposed application, manhole or flow control chamber

On receipt of the above Wavin can provide:

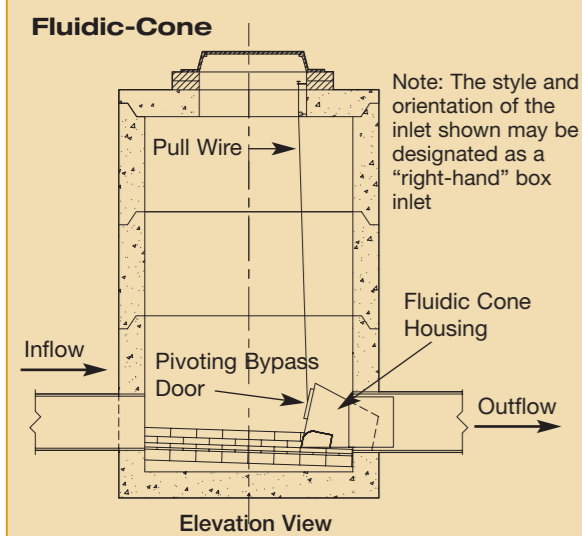
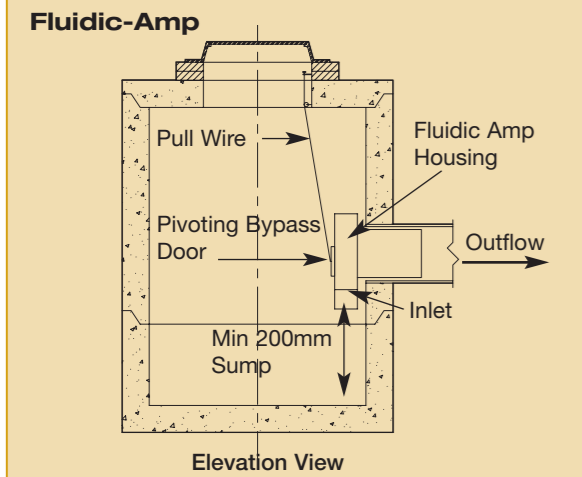
- Vortex Valve model, size and specification
- Typical installation drawing
- Quotation for supply of the Vortex Valve

**Performance**

The following graph demonstrates the typical head/discharge characteristics of the fluidic-amp and fluidic-cone Vortex Valves.

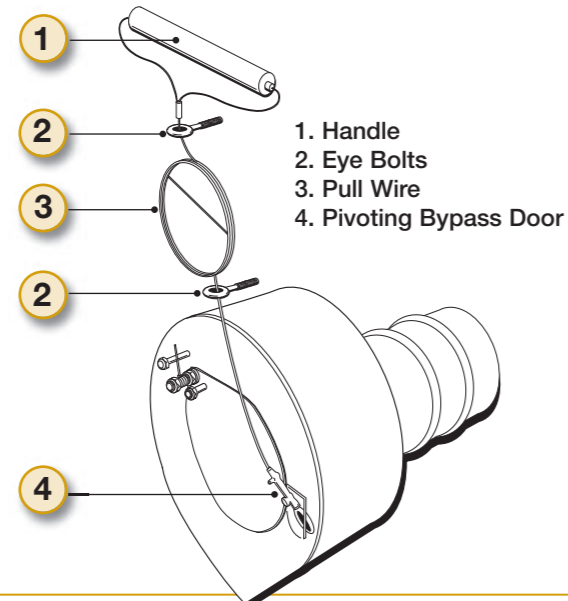


**Typical Installation Details**



**Maintenance**

As the Vortex Valve has no moving parts, maintenance requirements are minimal, however in the event of a blockage, the Vortex Valve units are fitted with an integral pivoting bypass door mounted on the front face of the unit. The bypass door is fitted with stainless steel wire rope that can be pulled from ground level. The door opens exposing a larger aperture on the front plate of the unit allowing the system to be drained of water. Once the water level in the housing structure subsides, the blockage can be easily accessed and removed.



**Vortex Flow Control Valves**

**Product and Installation Guide**



**Meeting your needs**

Wavin offers a comprehensive range of plastic, clay and terracotta systems under the OSMA, Hepworth, Hep<sub>2</sub>O<sup>®</sup> Intesio and Certus brands that provide intelligent solutions for all Building & Installation, Civils & Infrastructure and Surface Heating & Cooling applications.

**intesio**

Wavin's unique expertise in stormwater management is marketed under the Intesio brand. Intesio combines focused stormwater systems with proven project management skills to offer sustainable, customised, end-to-end solutions that deliver guaranteed performance and optimum customer value.

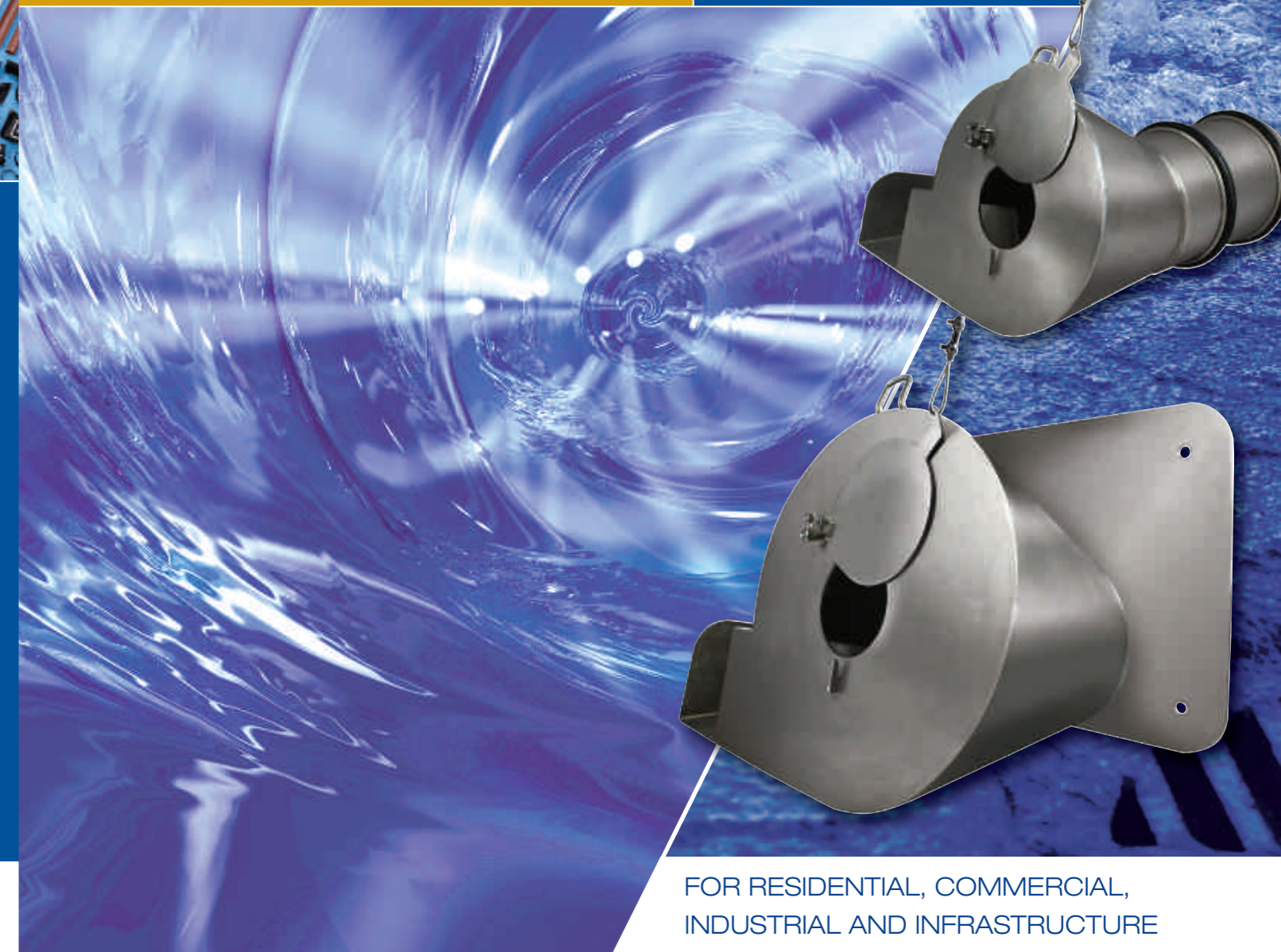
For further information on Intesio stormwater solutions, please visit our website [www.intesio.co.uk](http://www.intesio.co.uk)



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**Vortex Flow Control Valves**

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FOR RESIDENTIAL, COMMERCIAL, INDUSTRIAL AND INFRASTRUCTURE APPLICATIONS



[www.intesio.co.uk](http://www.intesio.co.uk)

WM421



Introduction to Intesio by Wavin

Wavin is a leading European manufacturer of industrial plastic products, and one of the largest producers of plastic pipe and fittings in the world.

Wavin is credited with inventing and pioneering the use of plastic pipe for water distribution in the mid 1950s. Constant research and development has enabled Wavin to maintain its position at the forefront of plastics technology.

Environmental responsibility

Wavin has BS EN ISO 9001: 2000 BSI status and was the first plastic pipe manufacturer to be accredited to BS EN ISO 14001 Environmental Management Systems.

Wavin is committed to environmental responsibility, and is a leading pioneer of systems to conserve and control water. In production, the Company recycles the majority of waste materials, and sets annual targets for energy efficiency audited by the certifying body.

Passion and resourcefulness

All Wavin personnel are committed to providing a comprehensive, responsive service – and are passionate about delivering total Customer satisfaction.

Wavin maintains an industry-wide dialogue and rigorous assessment of all procedures to ensure that Wavin product development and product support accurately addresses the needs of all Customers – today and into the future.

Quality assured products

Wavin systems are the benchmark for excellence and product innovation: precision-manufactured in the UK using the most advanced injection moulding and extrusion machines. All products comply with or exceed relevant British and European standards to ensure reliability and long-lasting service.

Intesio – Intelligent stormwater solutions by Wavin



Wavin's unique expertise in stormwater management is marketed under the Intesio brand. Intesio combines focused stormwater systems with proven project management skills to offer sustainable, customised, end-to-end solutions that deliver guaranteed performance and optimum customer value.

The Intesio Stormwater Management Systems incorporates:

Intesio – Infiltration and Attenuation Systems

- AquaCell Plus, Core and Lite
- Intesio – Oil Separation Systems

- Full Retention Systems
- By-pass Systems

Intesio – Plastic Civil Channel System

- Skip, Vip and Wing

Intesio – Vortex Flow Control Valves

- Fluidic-Amp and Fluidic-Cone

In addition to the above, Wavin offer a comprehensive range of systems/components to complement the Intesio range, suitable for all types of Residential, Commercial/Industrial and Infrastructure applications, these include:

Surface Catchment Systems

- Polymer Concrete Systems
- Plastic Channel Drainage
- Pervious Paving Systems

Stormwater Transportation Systems

- Solid Wall Pipe Systems – Clay & Plastic
- Structured Wall Pipe Systems – Plastic
- Land Drainage Systems – Plastic
- Non-Entry Inspection Chambers
- Anti-Flood Valves

Rainwater Re-use Systems

- Non-potable Domestic Systems



Range Introduction

Introduction

The Intesio range of Vortex Flow Control Valves enables precise control of discharge flow rates from drainage, storage attenuation and infiltration/soakaway systems. The device controls surface stormwater flow by hydraulic effect without the requirement of moving parts.

During low flow conditions, water entering through the inlet of the Vortex Flow Control Valve passes through the valve with negligible pressure drop. During high flow conditions, a vortex flow pattern develops within the device creating an air filled core. This phenomenon restricts and throttles flow through the device, creating back pressure immediately upstream of its discharge.

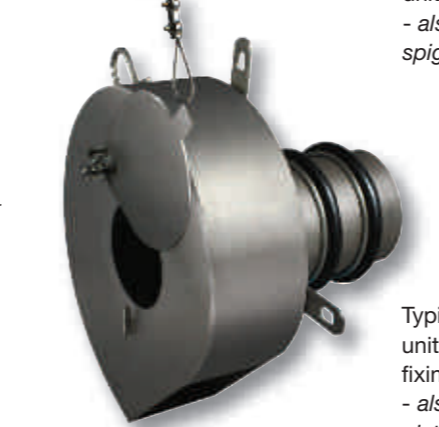
Unlike a traditional orifice plate, debris that might cause an obstruction or blockage is able to pass through the valve due to the relatively larger flow path opening.

The Intesio range of Vortex Flow Control Valves offers two methods of fixation:

- Fluidic-Amp – for low flow discharges.
- Fluidic-Cone – for high flow discharges
- both are available with either spigot or plate fixings.



Typical Fluidic-Cone unit with plate fixing. - also available with spigot fixing



Typical Fluidic-Amp unit with spigot fixing. - also available with plate fixing

To request a copy of any item(s) of current literature, or for any technical enquiries please contact:

LITERATURE REQUESTS

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Fax: 01249 766332  
Email: literature@wavin.co.uk

TECHNICAL DESIGN

Tel: 01249 766655  
Fax: 01249 766653  
Email: technical.design@wavin.co.uk

WAVIN ONLINE

The complete Wavin product catalogue, together with design and installation guidance, is also available online at: [www.wavin.co.uk](http://www.wavin.co.uk)

All literature can be downloaded via the searchable PDF library at [www.wavinpdfs.co.uk](http://www.wavinpdfs.co.uk)

Wavin images can be downloaded at different resolutions from [www.wavinimages.co.uk](http://www.wavinimages.co.uk)

Applications

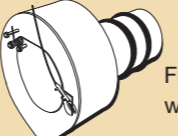

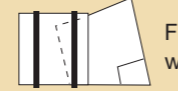

The Intesio Vortex Control Valve can be used wherever there is a need to limit the rate of flow of surface stormwater within a drainage system, and is typically used in applications including:

- Modular stormwater attenuation systems (e.g. AquaCell)
- Traditional attenuation storage
- Excess flows from infiltration/soakaway systems
- Wetlands, Ponds and Swales

Features and Benefits

- Precise flow control
- No moving parts or power requirements
- Self activating
- Reduced risk of blockages compared to orifice plates
- Integral by-pass door allows access for cleaning
- Custom built
- Manufactured from corrosion resistant stainless steel construction

System Overview

Product Selector	Peak Design Discharge	Design Head
 Fluidic-Amp with Spigot  Fluidic-Amp with Plate	0-50 l/s	0-1.6m in height/depth
 Fluidic-Cone with Spigot  Fluidic-Cone with Plate	0-120 l/s	0-3m in height/depth

Typical Application

Off-Line AquaCell Attenuation Tank using Fluidic-Amp with spigot

