

Applications

- Catch basins
- Manholes
- Energy dissipation structures
- CSO abatement plans
- Storm drains
- Culverts
- Detention basins

The HydroBrake

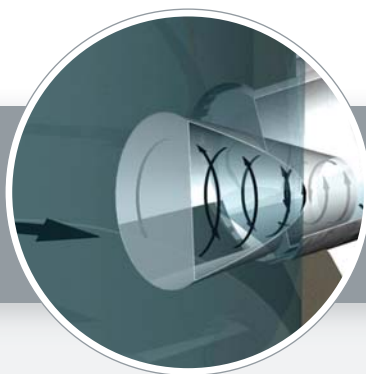
The HydroBrake is an efficient and convenient tool for regulating flow rates through storm sewer or combined sewer systems. The HydroBrake reduces clogging and increases the flow efficiency of underground detention systems, detention pond outlets, energy dissipation structures, or combined sewer overflow (CSO) abatement plans vs standard orifice controls.

Why HydroBrake?

- Simple, straightforward design precisely regulates flows
- Stainless steel construction ensures durability
- Unique design significantly reduces clogging and maintenance
- Flexible design fits multiple applications
- Laboratory verified stage discharge curves guarantee predictable results
- Easy access, maintenance-friendly design

About CONTECH Stormwater Solutions

When you select CONTECH Stormwater Solutions, you'll get much more than stormwater management products. You'll have dedicated, knowledgeable engineers and technical experts to help you select the right technology to meet your regulations. Our organization is committed to preserving water resources by providing customized, site-specific stormwater treatment solutions. And, every product is backed by the most comprehensive lab, field and independent testing in the industry. As one of the four divisions of CONTECH Construction Products – Stormwater, Bridge, Earth Stabilization, and Drainage – we bring you the most comprehensive portfolio of solutions in the industry. Every day. Every site.



Fluidic-Cone™

- Installs in structures with no sumps
- Three attachment options available (sleeve, plate, or flange)



Fluidic-Amp™

- Installs in catch basin outlets
- Three attachment options available (sleeve, plate, or flange)

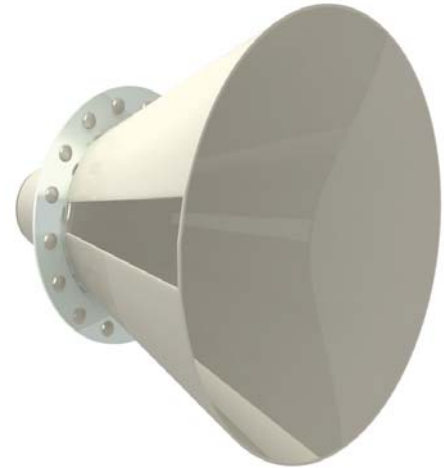
HydroBrake

Control flow without clogging

The HydroBrake behaves similarly to a standard orifice during low flow conditions, discharging flows at a low operating head. During high flow conditions, the device establishes a rotational flow pattern. The rotational velocities in the inlet section cause an air-cored vortex to form in the outlet section. The air core occupies the center of the outlet and creates a significant flow opposition.

At high flow rates, a HydroBrake with a relatively large outlet opening performs like a conventional device with a smaller orifice. Debris that might clog a smaller orifice are able to pass through the HydroBrake because of the relatively large outlet.

There are two styles of the HydroBrake available, Fluidic-Amp and Fluidic-Cone. The Fluidic-Amp HydroBrake derives its name from the vortex amplifier that is discussed in most fluid mechanics texts, while the Fluidic-Cone HydroBrake is named for its conical shape.

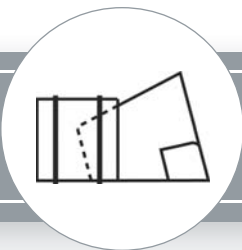


HydroBrake Accessories

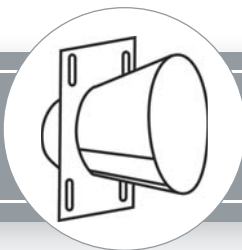
Sleeve – Usually most economical and easiest to install. The sleeve outside diameter will be smaller than the outlet pipe inside diameter. Two rubber O-rings are fitted to the sleeve to create a snug fit that will not leak.

Plate – Used to bolt the HydroBrake to the outlet of the structure. All details of the plate are usually shown on the construction drawings, including height, width, and bolt-hole/slot template.

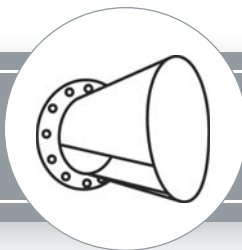
Flange – Circular plate used to affix HydroBrake to outlet of structure for a robust fit.



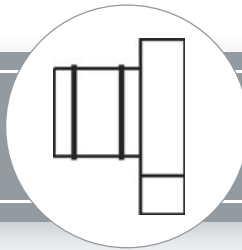
Fluidic-Cone with sleeve



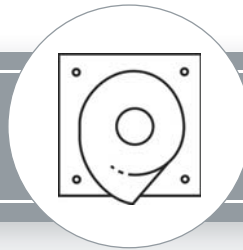
Fluidic-Cone with plate



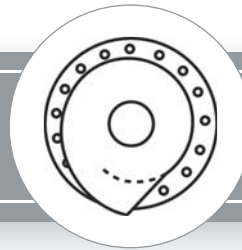
Fluidic-Cone with flange



Fluidic-Amp with sleeve



Fluidic-Amp with plate

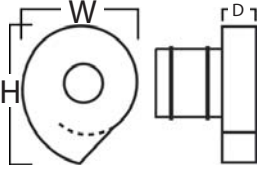


Fluidic-Amp with flange

Fluidic-Amp™

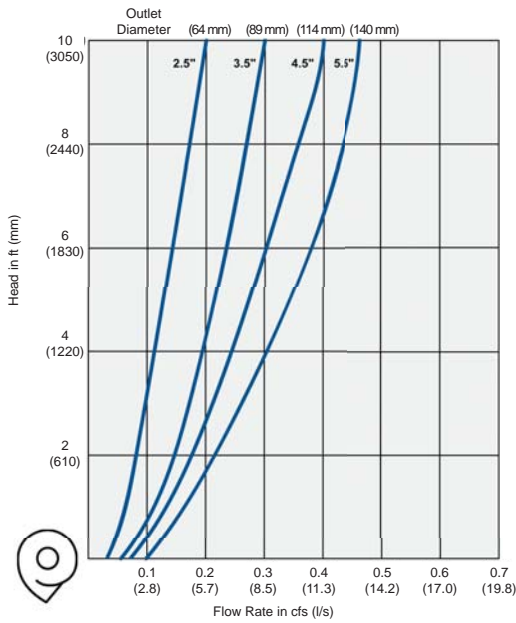
Sizes and configurations

Dimensions given are approximate outside measurements.

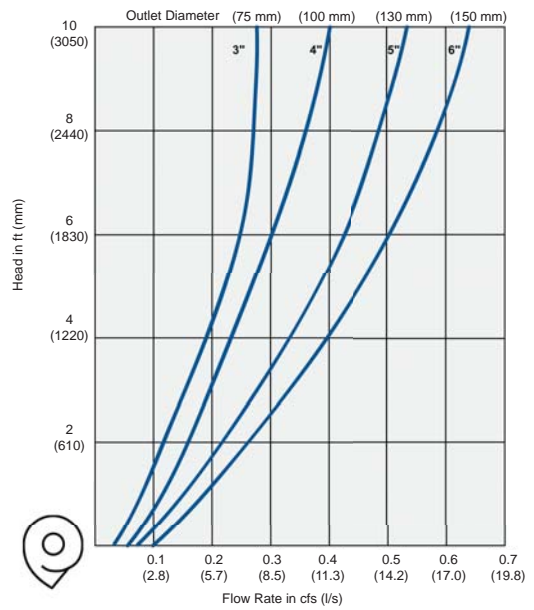


Model	Width (W)		Height (H)		Depth (D)	
	in	mm	in	mm	in	mm
12"x14"	12	305	13.8	351	4	102
14"x16"	14.5	368	16.75	425	4.5	114
17"x19"	16.75	425	19.5	495	5.5	140
20"x23"	20.25	514	23.5	597	6.5	165

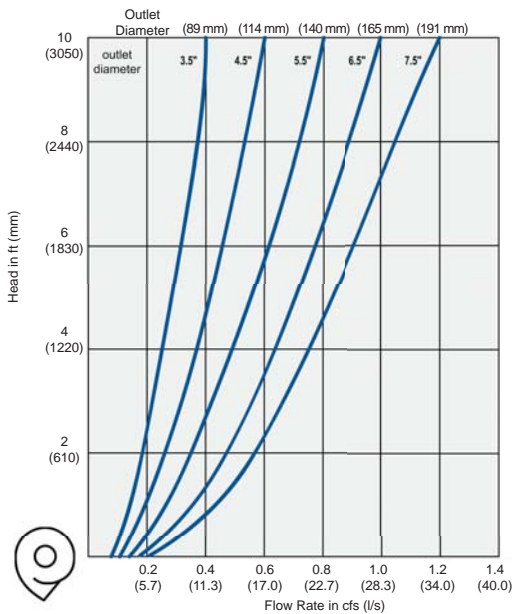
24" x 14" Fluidic-AMP
Max Sphere = 2.5"



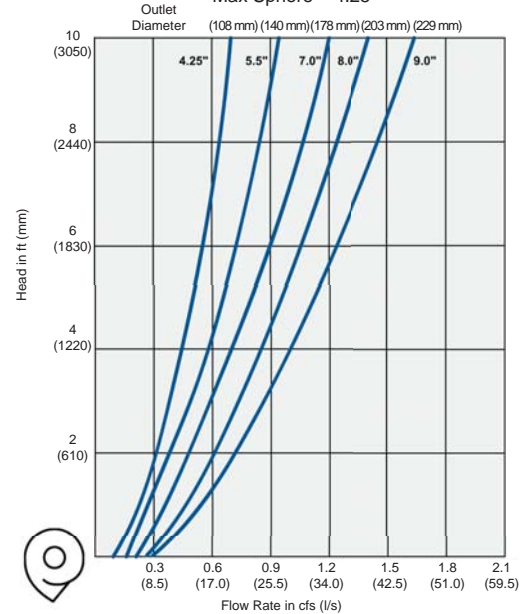
14" x 16" Fluidic-AMP
Max Sphere = 3"



17" x 19" Fluidic-AMP
Max Sphere = 3.5"



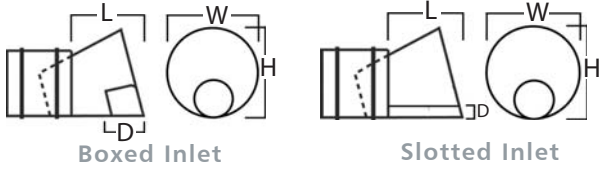
24" x 14" Fluidic-AMP
Max Sphere = 4.25"



Fluidic-Cone™

Sizes and configurations

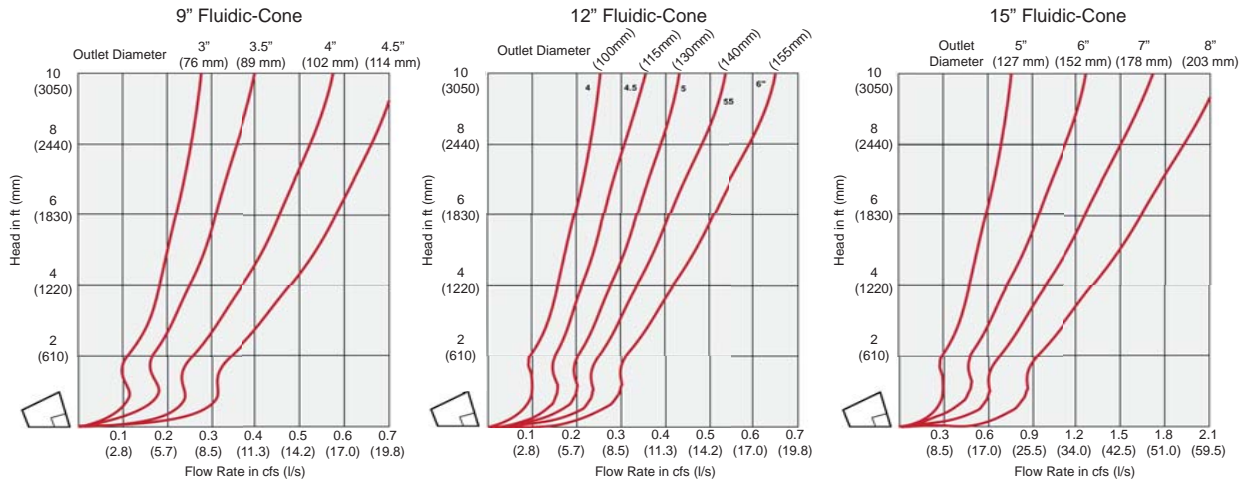
Length (L), refers to the point of attachment of the sleeve, plate, or flange.



Model	Width (W)		Height (H)		Depth (D)		Length	
	in	mm	in	mm	in	mm	in	mm
9"	9	229	9	229	3-5	76-127	6	152
12"	12	305	11.75	298	4-6	102-152	8	203
15"	15	381	14.75	375	5-8	127-203	10	254
18"	18	457	17.75	451	3	76	12	305
21"	21	533	20.5	521	3.5	89	14	356
24"	24	610	23.5	597	4	102	16	406

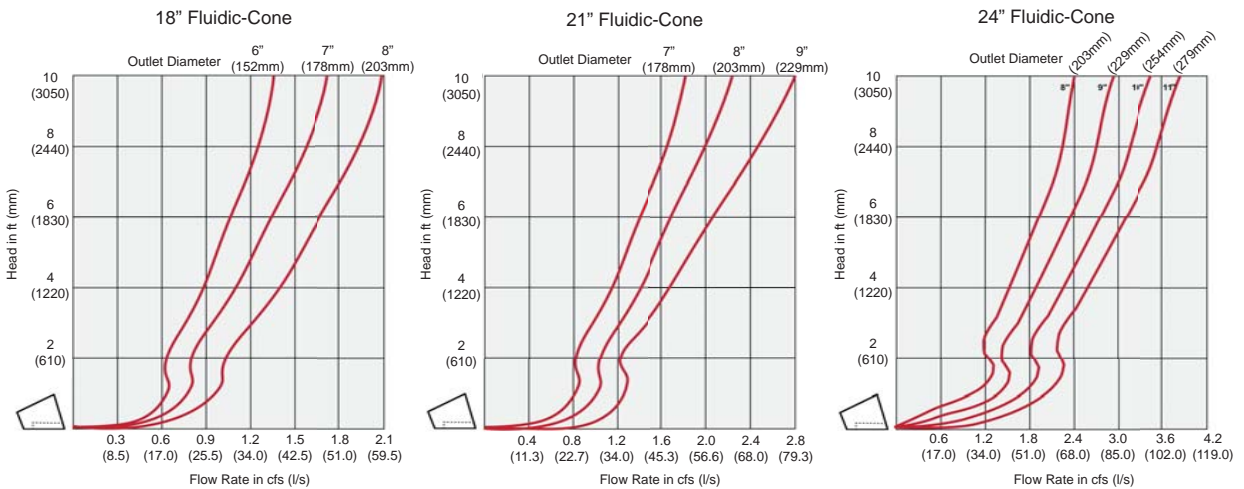
Boxed Inlet

The boxed inlet is used in smaller HydroBrake sizes. The boxed inlet is always slightly smaller than the specified outlet diameter.



Slotted Inlet

The slotted inlet is used on larger HydroBrake sizes to keep the overall dimensions small enough to permit them to pass through most manhole or catch basin castings.



Filtration

Hydrodynamic Separation

Screening

Oil/Water Separation

