# Open channels with exponential section **VENTURI CHANNELS DEBITFLO**





- Flow rate ranges from 0.22 m<sup>3</sup>/h up to 1440
- Easy civil engineering

## **APPLICATIONS**

Measurement of flow-rate in open channel for sewage treatment plants, washing treatment and water treatment in industry etc.

## **DESCRIPTION**

The Venturi of exponential section is designed to measure flow-rate in a straight linear open channel.

This Venturi add to the advantages of a classic channel, a larger measuring range. With the parabolic shape of the restriction, the Venturi is more accurate at low flow-rates.

This Venturi allows a scale factor from 1 to 100 (to compare to 1 to 20 on classic Venturi).

Example: Measurement from 3.6 m<sup>3</sup>/h up to 360 m<sup>3</sup>/h for channel type 5 with exponential section.

The table flow-rate vs. heiht of liquid is supplied with each Venturi, and, the limnimetric scale on stainless steel ruler comes with the approach channel.

An extended version of ISO 4359 includes the Venturi with exponential section.

#### Strength and resistance of the channels:

These glass fiber reinforced polyester channels have an extremely reduced roughness coefficient and resistance to aggressive and charged effluents. The solidity is ensured by transverse stiffeners allowing their direct installation in formwork.

## Simplified installation:

On request, we supply assemblies (approach channel + Venturi) integrated in a plastics housing allowing a simple and mobile installation.



Complete channel in a plastic housing, ready to install.



Example: Channel with level/flow-rate and pH monitoring



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## **CODE NUMBERS AND DIMENSIONS**

Below: Scales available with corresponding overall dimensions [mm] and internal widths of the approach channels.

Important: Refer to commissioning recommendations (straight lengths, measuring point, etc.)

Code	Description	Length	Width	Height	Internal width
Flow-rate	e: 0.22 to 22 m³/h				
755 615	VENTURI, exponential, Type 1	750	158	230	-
755 616	LARGE approach channel, Type 1	950	158	230	90
755 617	LARGE approach channel, Type 1, with sided measurement well	950	308	230	90
755 618	Limnimetric scale, spare part ruler type 1	-	-	-	-
Flow-rate	e: 0.43 to 43 m³/h				
755 625	VENTURI, exponential, Type 2	1000	198	280	-
755 626	LARGE approach channel, Type 2	1300	198	280	130
755 627	LARGE approach channel, Type 2, with sided measurement well	1300	348	280	130
755 629	Limnimetric scale, spare part ruler type 2	-	-	-	-
Flow-rate	e: 0.90 to 90 m³/h				
755 634	VENTURI, exponential, Type 3	1350	270	345	-
755 636	LARGE approach channel, Type 3	1900	270	345	190
Flow-rate	e: 1.80 to 180 m³/h				
755 644	VENTURI, exponential, Type 4	1800	390	430	-
755 646	LARGE approach channel, Type 4	2800	390	430	280
Flow-rate	e: 3.60 to 360 m³/h				
755 654	VENTURI, exponential, Type 5	2500	534	510	-
755 656	LARGE approach channel, Type 5	4200	534	510	420
Flow-rate	: 7.20 to 720 m³/h				
755 664	VENTURI, exponential, Type 6	3150	666	650	-
755 666	LARGE approach channel, Type 6	5500*	666	650	550
Flow-rate	e: 14.40 to 1440 m³/h				
755 674	VENTURI, exponential, Type 7	4200	860	855	-
755 676	LARGE approach channel, Type 7	7300*	860	855	730

## (\*): Approach channel in 2 parts

Our level probes and converters make it possible to measure the flow and, if necessary, to record the data (flow and totalization). Example of instrumentation:



**BAMOSONIC** Ultrasonic level transmitter (data-sheet 597-06)



**BAMOBUL** Air bubbling level transmitter (data-sheet 758-02)



**BAMOPHAR 759** Flow calculator / recorder (data-sheet 759-03)



**NANODAC** Multichannel recorder (data-sheet 212-02)



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