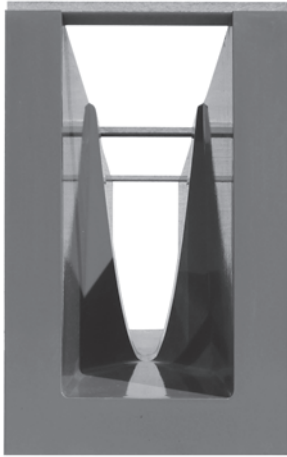


# Open channel with exponential restriction VENTURI CHANNEL DEBITFLO



- 7 channels in composite material
- Flow rate scales from 0.22 up to 1440 m<sup>3</sup>/h
- Easy civil engineering

## DESCRIPTION

Venturi channels, exponential model, are designed to measure flow rate in open channels. When conditions of non-turbulent flow and totally free outlet are respected, the height of fluid ( $h$ , upstream) is directly related to the flow rate ( $Q$ ).

The width narrowing has parabolic shape to allow a great accuracy even with low flow rates.

The main advantage is a ratio of scale 1 to 100, useful when industrial process may vary often and in great proportions or to consider additional storm rains.

They are useful either on waste water, contaminated fluid even with solids/particles or chemically aggressive liquids.

With our associated monitor BAMOPHOX 759 data logger, it is easy to record and survey the effluents.

By construction, and adequate roughness of polyester isophthalique resin (UV protected) DEBITFLO is ideal for use outdoor.

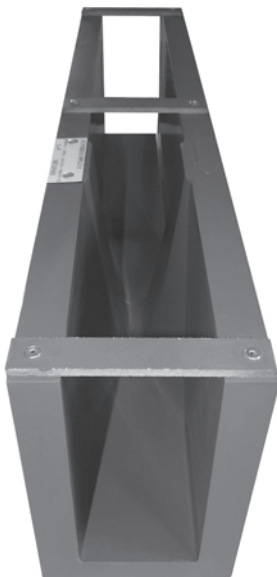
The material is resistant to hydrolysis and chemically compatible with acids; it will not afford solvents such as styrene, acetones, etc.

## FEATURES

- Standard types from type 1 to type 7 are delivered with "Flow chart  $Q(h)$ ".
- On option, we can supply the complete channel integrated in polypropylene housing, for a mobile unit and easily installed on site.

## MATERIAL FEATURES

Deformation:	Buckling at 243 °C
Strain:	1,4 %
Barcol Hardness:	72
Elasticity:	3,40 GPa
Compression:	46 MPa



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## DIMENSIONS

### Venturi with exponential restriction (all dimensions on next page)

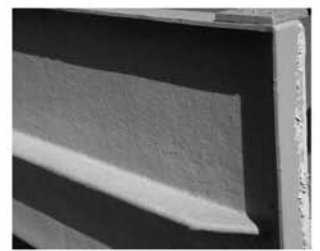
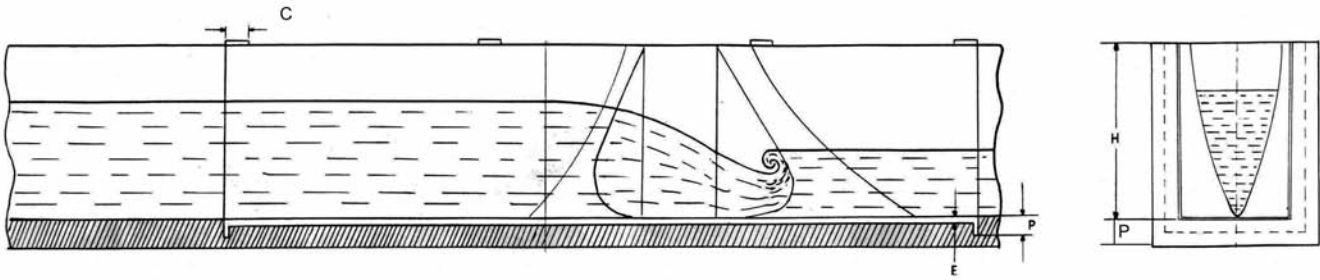


Fig. 2

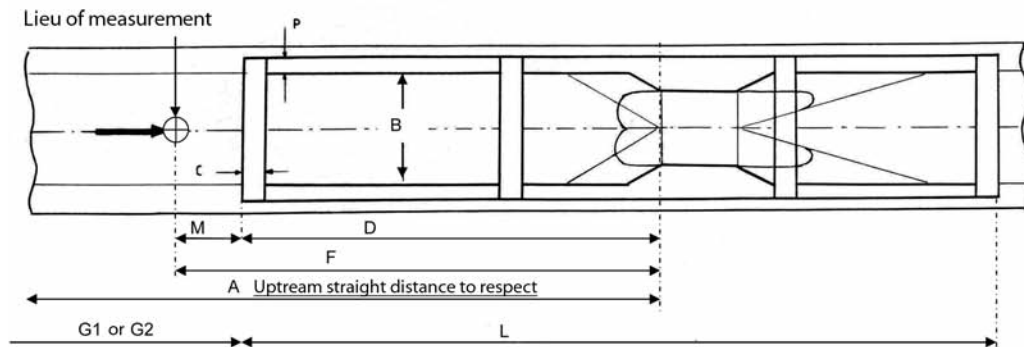


Fig. 1 (G1 and G2 concern the short version – see below and next page table)

### Approach channels LONG VERSION, glass fibre reinforced polyester

Type	Inner length (mm)	Inner width (mm)	Inner height (mm)
I	950	90	200
II	1300	130	250
III	1900	190	310
IV	2800	280	380
V	4200	420	460
VI	5500 (2 x 2750)	550	600
VII	7300 (2 x 3650)	730	800

### Canaux d'approche MODELES COURTS, en polyester renforcé fibre de verre

Type	Inner length (mm)	Inner width (mm)	Inner height (mm)
I	490	90	200
II	725	130	250
III	1175	190	310
IV	1920	280	380
V	3120	420	460
VI	4400 (2 x 2200)	550	600
VII	5840 (2 x 2920)	730	800

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LONG VERSION, Venturi Channel with approach channel (all glass fibre reinforced polyester)

Type		I		II		III		IV		V		VI		VII			
<b>A</b>	Upstream straight distance to respect	945		1300		1900		2800		4200		5500		7300			
<b>B</b>	Inner width	90		130		190		280		420		550		730			
<b>C</b>	Cross bar width	25		30		40		50		80		100		140			
	Cross bar number	3		4		4		4		4		4		4			
<b>D</b>	Straight distance inside	455		575		725		880		1080		1100		1460			
<b>E</b>	Wall thickness	4		4		5		5		7		8		10			
<b>F</b>	Lieu for measurement against restriction	560		700		885		1120		1400		1850		2400			
<b>M</b>	Lieu for measurement against VENTURI	105		125		160		240		320		750		940			
<b>H</b>	Inner height	200		250		310		380		460		600		800			
<b>L</b>	Total length	750		1000		1350		1800		2500		3150		4200			
<b>P</b>	Width of strainers	30		30		35		50		50		50		55			
<b>R</b>	Lateral strengthening piece (See Fig.2)	None		None		None		None		None		1 // 85		2 // 90			
	<b>Flow rates</b>	l/s		m <sup>3</sup> /h		l/s		m <sup>3</sup> /h		l/s		m <sup>3</sup> /h		l/s		m <sup>3</sup> /h	
<b>Q</b>	<b>Lowest flow</b>	0.06	0.22	0.12	0.43	0.25	0.90	0.5	1.80	1	3.60	2	7.20	4	14.40		
<b>Q</b>	<b>Highest flow</b>	6	22	12	43	25	90	50	180	100	360	200	720	400	1440		

SHORT VERSION, Venturi Channel with approach channel (all glass fibre reinforced polyester)

Type		I		II		III		IV		V		VI		VII			
<b>A</b>	Upstream straight distance to respect	945		1300		1900		2800		4200		5500		7300			
<b>B</b>	Inner width	90		130		190		280		420		550		730			
<b>C</b>	Cross bar width	25		30		40		50		80		100		140			
	Cross bar number	3		4		4		4		4		4		4			
<b>D</b>	Straight distance inside /contraction latérale	455		575		725		880		1080		1100		1460			
<b>E</b>	Wall thickness	4		4		5		5		7		8		10			
<b>F</b>	Lieu of measurement against restriction	560		700		885		1120		1400		1850		2400			
<b>G1</b>	Upstream straight distance before VENTURI as a minimum	490		725		1175		1920		3120		4400		5840			
<b>G2</b>	Upstream straight distance before VENTURI, preferred	945		1300		1900		2800		4200		5500		7300			
<b>M</b>	Lieu of measurement against VENTURI	105		125		160		240		320		750		940			
<b>H</b>	Inner height	200		250		310		380		460		600		800			
<b>L</b>	Total length	750		1000		1350		1800		2500		3150		4200			
<b>P</b>	Width of strainers	30		30		35		50		50		50		55			
<b>**R</b>	Lateral strengthening piece (See Fig.2)	None		None		None		None		None		1 // 85		2 // 90			
		l/s		m <sup>3</sup> /h		l/s		m <sup>3</sup> /h		l/s		m <sup>3</sup> /h		l/s		m <sup>3</sup> /h	
<b>Q</b>	<b>Lowest flow</b>	0.06	0.22	0.12	0.43	0.25	0.90	0.5	1.80	1	3.60	2	7.20	4	14.40		
<b>Q</b>	<b>Highest flow</b>	6	22	12	43	25	90	50	180	100	360	200	720	400	1440		



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## CODE NUMBERS AND FEATURES

Code	Description	Length **	Width **	Heigh **
755 615	VENTURI, exponential - Type 1	750	158	230
755 616	Approach channel LONG - Type 1	950	158	230
755 617	Approach channel LONG - Type 1 with sided well	950	308	230
755 618	Approach channel SHORT - Type 1	490	158	230
755 619	Approach channel SHORT - Type 1 with sided well	490	308	230
755 625	VENTURI, exponential - Type 2	1000	198	280
755 626	Approach channel LONG - Type 2	1300	198	280
755 627	Approach channel LONG - Type 2 with sided well	1300	348	280
755 628	Approach channel SHORT - Type 2	725	198	280
755 629	Approach channel SHORT - Type 2 with sided well	725	348	280
755 634	VENTURI, exponential - Type 3	1350	270	345
755 636	Canal d'approche LONG - Type 3	1900	270	345
755 638	Canal d'approche SHORT - Type 3	1175	270	345
755 644	VENTURI, exponential - Type 4	1800	390	430
755 646	Approach channel LONG - Type 4	2800	390	430
755 648	Approach channel SHORT - Type 4	1920	390	430
755 654	VENTURI, exponential - Type 5	2500	534	510
755 656	Approach channel LONG - Type 5	4200	534	510
755 658	Approach channel SHORT - Type 5	3120	534	510
755 664	VENTURI, exponential - Type 6	3150	666	650
755 666	Approach channel LONG - Type 6	5500*	666	650
755 668	Approach channel SHORT - Type 6	4400*	666	650
755 674	VENTURI, exponential - Type 7	4200	860	855
755 676	Approach channel LONG - Type 7	7300*	860	855
755 678	Approach channel SHORT - Type 7	5840*	860	855

(\*) : Approach channels delivered in 2 parts (*identical*)

(\*\*) : Total dimensions [mm]

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