

**SIRIS**  
ENVIRONMENTAL

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Compliance today for the  
environment tomorrow

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### **Our service promise**

At SIRIS we guarantee that any system we design, install and maintain will be fully MCERTS-compliant – giving you the peace of mind that your system is providing accurate, cost-effective results and ensuring ongoing compliance with Environment Agency regulations.

## **Open Channel Flow Measurement**





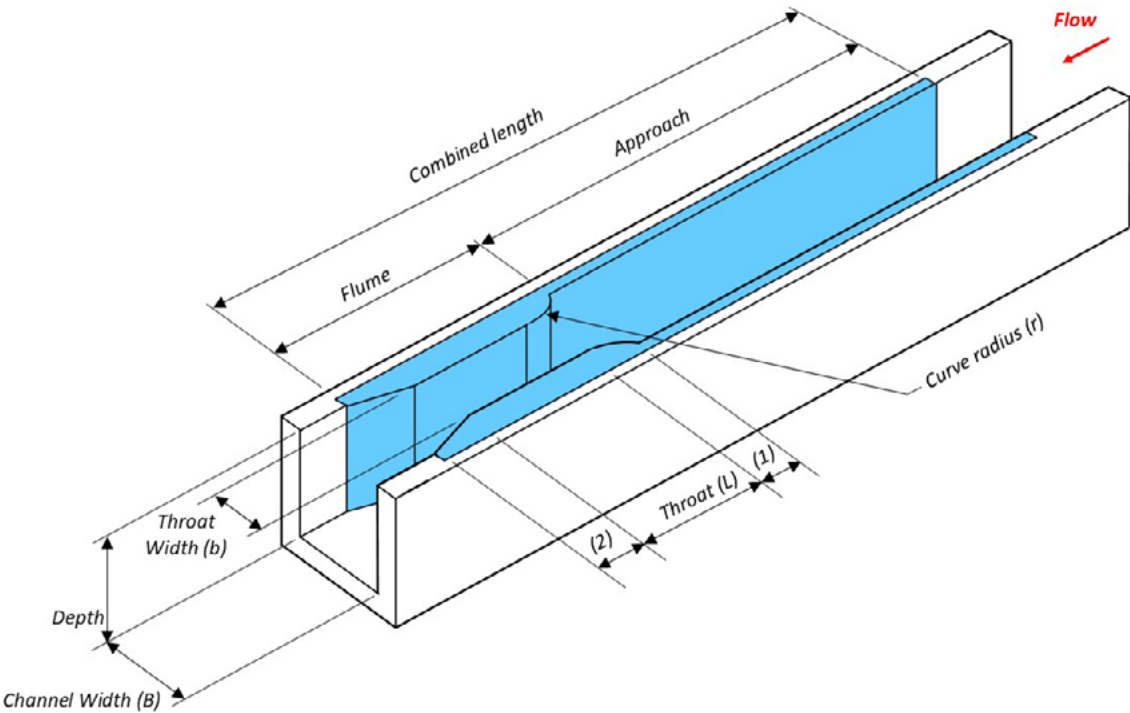
Flumes & Weirs

Flumes are suitable for both open channel flow measurement and storm water overflow and are used almost exclusively for measuring the inlet flow to sewage treatment works. We offer a range of standard sizes that we hold in stock, and can manufacture bespoke units for specific channel sizes or hydraulic requirements.

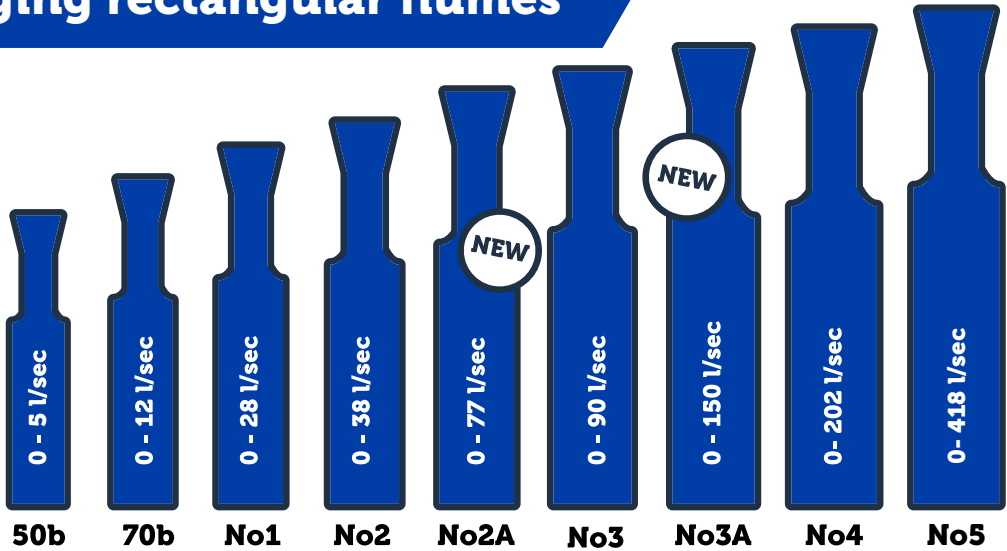
Thin plate weirs are most commonly either in v-notch or rectangular notch format. Depending upon type, they can be used for a wide range of flows, with v-notches being especially suitable for very low flow rates with high accuracy. They are ideal for use on cleaner applications such as final effluent from treatment plants or some industrial discharges.

Our standard flume and weir open channel flow measurement systems cover a wide range of flow rates and can be designed to suit most discharge applications.

All SIRIS flumes and weirs are designed to ensure compliance with both BS/ISO and MCERTS.



Flow gauging rectangular flumes



SIRIS Flume Type	Overall Length** (mm)	Overall Width (mm)	Overall Depth (mm)	Channel Width (mm)	Channel Depth (mm)	Hmax (mm)	Qmax (l/s)
50b	1516	200	Approx 250	100	200	150	4.99
70b	1550	200	Approx 300	100	250	210	12.42
No1	2316	250	Approx 450	150	400	300	28.81
No2	3483	350	Approx 400	250	350	275	38.81
No2A	3833	350	Approx 650	250	600	450	77.27
No3	4232	400	Approx 636	300	586	400	90.43
No3A	7081	600	Approx 800	500	750	500	150.54
No4	7715	700	Approx 700	600	650	425	202.99
No5	2497*	900	Approx 1050	800	1000	600	418.85

1. BS/ISO recommends a minimum upstream head of 50mm. Lab tests have shown good flow to head correlation to on 0.5 l/s for the SIRIS(50b) flume & 0.72 l/s for the SIRIS(70b) flume. Care should be taken when using the 50b and 70b flumes due to the narrow throat restriction (50mm and 70mm) particularly on inlet flows and unscreened sewage. Good access for cleaning is critical.

2. BS/ISO recommends a minimum upstream head of 50mm. Lab tests have shown good flow to head correlation <1.5 l/s for the SIRIS(No1) flume.

3. The approach length is based upon guidance taken from BS/ISO standard. It should be noted that if flows enter the approach with a high velocity or after a sharp bend, angle or sluice gate, a greater length of uniform approach may be required.

\* The overall length of the No5 flume is for a 'Flume only section'. The approach channel is assumed to be fabricated on site using a new or existing concrete approach. The remaining flumes above overall length includes for the approach channels.

\*\* The approach channels for the 50b, 70b, No1, No2, No2A all come with a combined approach (Single fabrication).

\*\* The approach channels for the No3, No3A and No4 come with additional approach lengths that need to be bolted together on site. Please note the maximum flume capacities can be marginally exceeded with additional uncertainties – contact Siris

Flow gauging weir tanks

Siris standard weir tanks	Tank width (mm)	Tank length (mm)	Tank height (mm)	Flow range (Q) (l/sec)
Siris XXS	tbc	tbc	tbc	<2
Siris XS	600	1300	700	2
Siris S	1000	1500	800	5
Siris M	1000	2440	800	25*
Siris L	1000	3000	800	50*
Siris XL	1500	3500	1000	>70*

Measurements represent internal dimensions. Bespoke weir tanks can be designed to specific client requirements. \*Flow ranges for the Siris M, L & XL tanks are dependent upon type of weir plate installed.

Flumes in boxes (FIBS)

The standard SIRIS range of flumes up to the NO2A can be supplied as a standalone flume in a box arrangement with approach channel & transition pieces.

This is ideal for installations in which the entire system is above ground and can be bolted to existing pipeline. In addition, we can include for a pre-fabricated single or double storm overflow channel.

This can also include the flow meter and EDM meter pre-installed and pre-programmed.

