



armfield

FLUMES AND GAUGING WEIRS

FEX26-1-11

Provisional

A series of flumes and weirs for the measurement of water flow rates in open channels.

All flumes and weirs have the following features:

- **LOW COST**
- **HIGHLY PORTABLE**
- **EXTREMELY DURABLE**

FEX26-1/2/3 Parshall flumes

Named after the inventor, this widely used flume causes little head loss and passes sediment readily. Constructed in GRP, flumes are supplied with measuring scales, spirit levels and calibration curves.

TECHNICAL DETAILS

FEX26-1: Parshall flume 25mm throat for flows 0.3 to 5 L/sec

FEX26-2: Parshall flume 51mm throat for flows 0.5 to 14 L/sec

FEX26-3: Parshall flume 152mm throat for flows 1.5 to 110 L/sec

ORDERING SPECIFICATION

Parshall flumes constructed in GRP, supplied with measuring scales, spirit levels and calibration curves.

OVERALL DIMENSIONS

FEX26-1:

Height: 270mm

Width: 360mm

Depth: 710mm

FEX26-2:

Height: 305mm

Width: 420mm

Depth: 860mm

FEX26-3:

Height: 756mm

Width: 902mm

Depth: 1830mm

SHIPPING SPECIFICATIONS

FEX26-1:

Volume: 0.01m³

Gross weight: 40kg

FEX26-2:

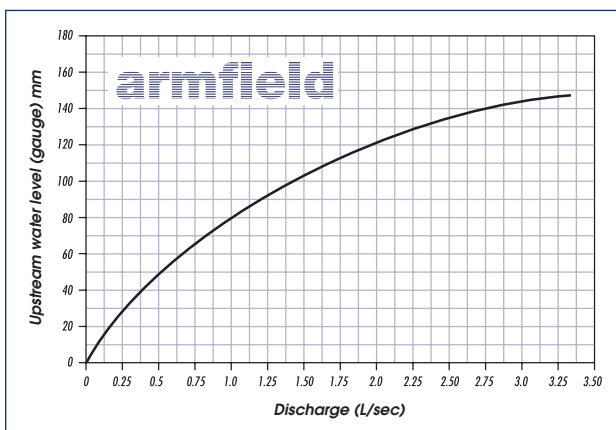
Volume: 0.20m³

Gross weight: 50kg

FEX26-3:

Volume: 0.40m³

Gross weight: 60kg



Calibration curve for a typical Parshall flume

FEX26-4/5/6 WSC flumes

This trapezoidal design of flume, developed by Washington State College (WSC) for field irrigation, has the advantages over the rectangular flume of giving a greater depth range, of conforming more closely to the channel section and of allowing sediment to pass more freely. Constructed in GRP, these flumes are fitted with a depth measuring scale supplied with calibration curve.

TECHNICAL DETAILS

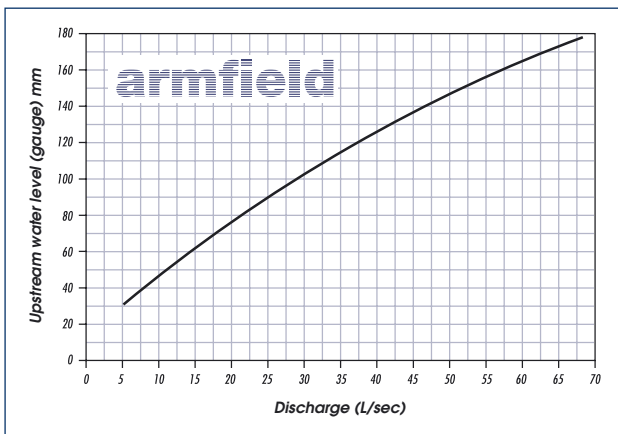
FEX26-4: WSC flume for flows 0.1 to 2.0 L/sec

FEX26-5: WSC flume for flows 1.0 to 7.5 L/sec

FEX26-6: WSC flume for flows 6.0 to 76 L/sec

ORDERING SPECIFICATION

WSC flumes constructed in GRP and fitted with depth measuring scale, supplied with calibration curve.



Calibration curve for a typical WSC flume



FEX26-4 WSC flume

OVERALL DIMENSIONS

FEX26-4:

Height: 175mm

Width: 250mm

Depth: 500mm

FEX26-5:

Height: 230mm

Width: 350mm

Depth: 780mm

FEX26-6:

Height: 420mm

Width: 707mm

Depth: 1057mm

SHIPPING SPECIFICATIONS

FEX26-4:

Volume: 0.01m³

Gross weight: 40kg

FEX26-5:

Volume: 0.20m³

Gross weight: 50kg

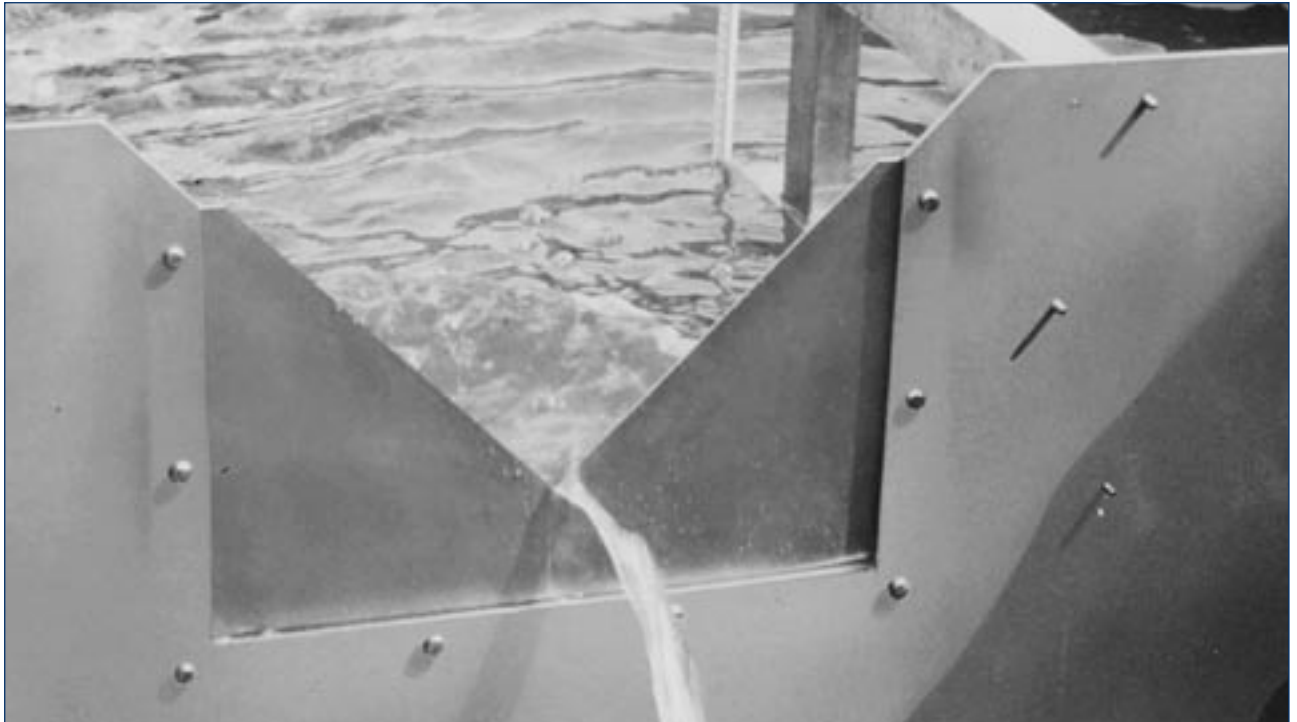
FEX26-6:

Volume: 0.75m³

Gross weight: 60kg

FEX26-7

Thin plate weirs & accessories



90° v-notch weir

Armfield thin plate weirs are constructed of stainless steel and mounted on a painted weir plate carrier which can set either into the banks and bed of a small stream or fixed to the end of a concrete channel. A simple head scale is attached to each weir plate but a stilling well can be fitted for greater accuracy.

The following weir plates are supplied: rectangular weir, Cipoletti weir, 90° v-notch weir, ½ 90° v-notch weir.

TECHNICAL DETAILS

Rectangular weir: max flow rate of 28 L/sec

Cipoletti weir: a trapezoidal shaped weir with a max flow rate of 28 L/sec

90° v-notch weir: max flow rate of 15 L/sec

½ 90° v-notch weir: max flow rate of 7.5 L/sec

ORDERING SPECIFICATION

Thin plate weirs constructed of stainless steel and mounted on a painted weir plate carrier with a simple head scale attached.

SHIPPING SPECIFICATIONS

Volume: 0.20m³
Gross weight: 100kg

FEX26-8

Stilling well with depth gauge

Depth gauge comprises 300mm hook and point gauge, resolution 0.1mm.

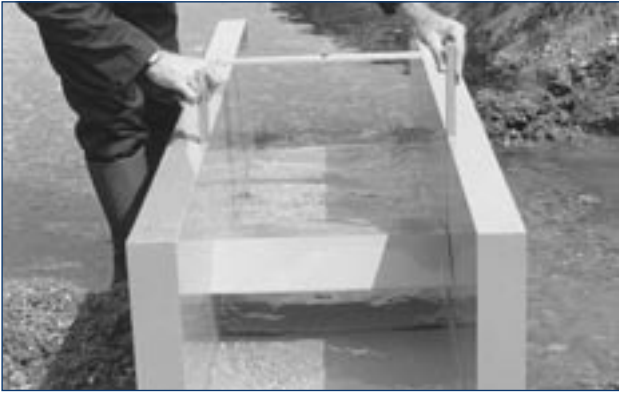
ORDERING SPECIFICATION

Stilling well with depth gauge comprising hook and point gauge.

SHIPPING SPECIFICATION

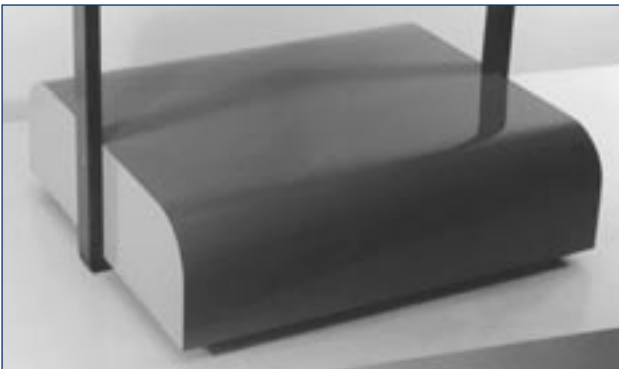
Volume: 0.30m³
Gross weight: 50kg

FEX26-9 **Channel section**



A lightweight channel section made from corrosion resistant material with the provision for easy mounting of the FEX26-10/11.

FEX26-10 **Broad-crested weir**



Used for controlling upstream water levels and measuring discharge rate. The weir is set perpendicular to the flow across the channel bed. It is particularly useful in sediment laden waters that can be detrimental to sharp edged weirs. Made from GRP

FEX26-11 **Crump weir**

Named after its designer, C.S. Crump, this broad-crested weir is triangular in section making it less likely to trap silt and debris. The weir is used for accurate measurement of discharge rates. Made from GRP.

TECHNICAL DETAILS

FEX26-10: flow range: 0-30 L/sec

FEX26-11: flow range: 0-30 L/sec

ORDERING SPECIFICATION

FEX26-9: *Lightweight portable channel section constructed of corrosion resistant material.*

FEX26-10: *Broad crested weir constructed of GRP.*

FEX26-11: *Triangular shaped broad crested Crump weir constructed of GRP.*

OVERALL DIMENSIONS

FEX26-9:

Height: 525mm

Width: 600mm

Depth: 2000mm

FEX26-10:

Height: 120mm

Width: 450mm

Depth: 400mm

FEX26-11:

Height: 70mm

Width: 450mm

Depth: 450mm

SHIPPING SPECIFICATION

FEX26-9:

Volume: 0.60m³

Gross weight: 70kg

FEX26-10:

Volume: 0.10m³

Gross weight: 30kg

FEX26-11:

Volume: 0.10m³

Gross weight: 30kg

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