

F SERIES

Two different weir plates are provided enabling familiarisation and comparison with theory.

Experimental content

- ▶ To determine the characteristics of open channel flow over a rectangular notch
- ▶ To determine the characteristics of open channel flow over a triangular (vee) notch
- ▶ To determine values of the discharge coefficient for both notches

Description

The flow over weirs consists of five basic elements used in conjunction with the flow channel in the moulded benchtop of the Hydraulics Bench. A quick-release connector in the base of the channel is unscrewed and a delivery nozzle screwed in its place.

A stilling baffle locates into slots in the walls of the channel. The combination of the inlet nozzle and stilling baffle promote smooth flow conditions in the channel.

A Vernier hook and point gauge is mounted on an instrument carrier which is located on the side channels of the moulded top. The carrier may be moved along the channels to the required measurement position.

The rectangular notch weir or V notch weir to be tested is clamped to the weir carrier in the channel by thumb nuts. The stainless steel weir plates incorporate captive studs to aid assembly.

Overall dimensions of weir plate

Thickness	0.002m
Width	0.23m
Height	0.16m

Dimensions of rectangular notch

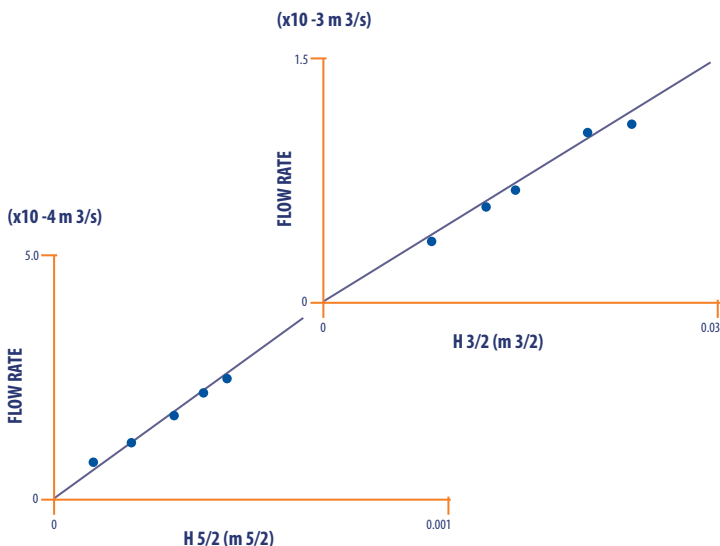
Width	0.03m
Height	0.082m

Angle of V notch weir 90° inclusive

Hook & point gauge range 0-150mm

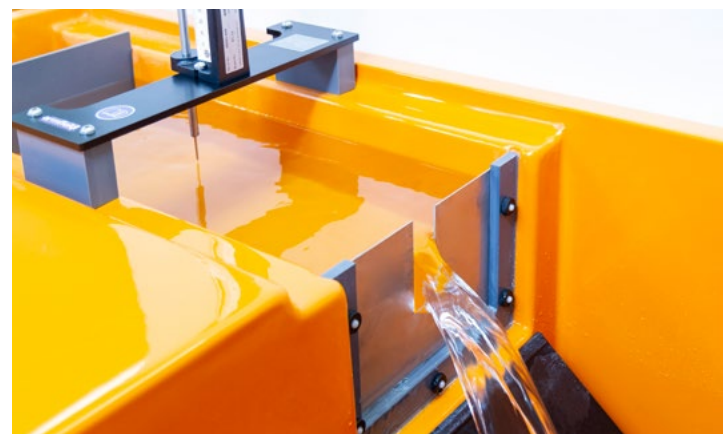
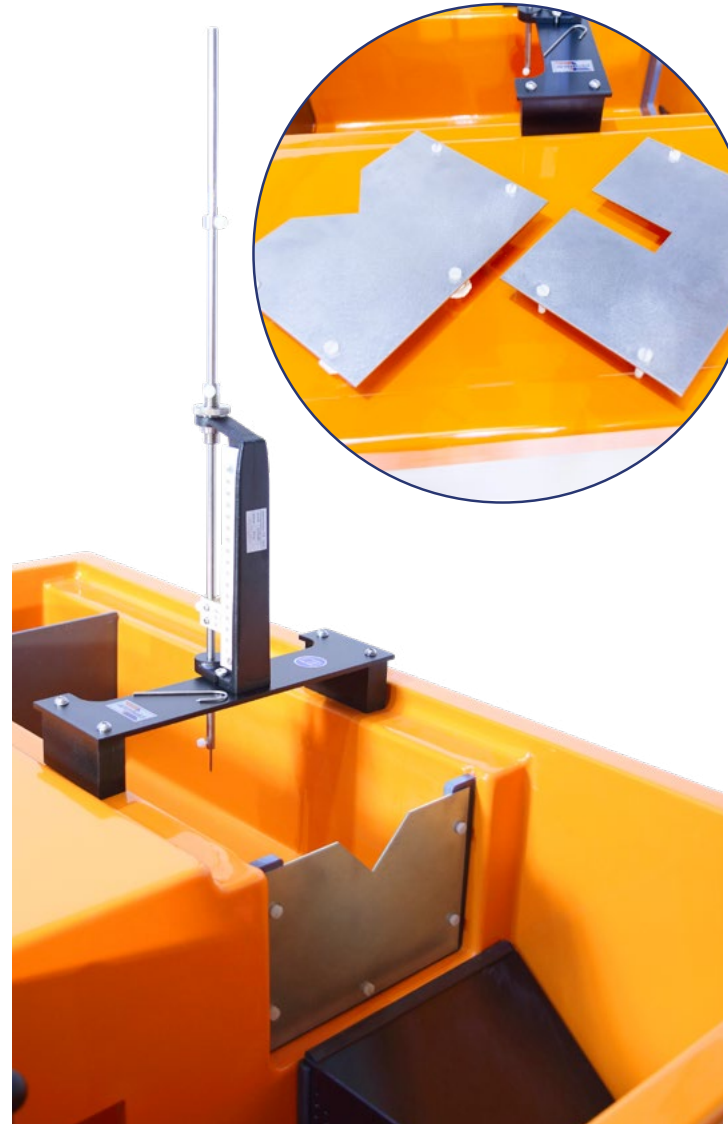
Accuracy 0.1mm

Requires Hydraulics Bench Service unit F1-10



Flow over weirs – F1-13

F1-13 V notch & rectangular notch weir plates



Ordering codes

▶ F1-13

UK office - email: sales@armfield.co.uk tel: +44 (0) 1425 478781 (for ROW)

USA office - email: info@armfield.inc tel: +1 (609) 208-2800 (USA only)

Service and maintenance support: armfieldassist.com

Issue: 2

URL: <http://www.armfield.co.uk/f1>

Applications

ChE ME CE IP

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