armfield

F SERIES

SOFTWARE INCLUDED WITH ALL F1-10 BENCH'S AS STANDARD

F SERIES: BASIC FLUID MECHANICS
Complete Fluid Mechanics Laboratory – F1

Flow over weirs - F1-13-MKII/F1-13a

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	
Thickness	0.002m
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	

F1-13-MKII Weirs

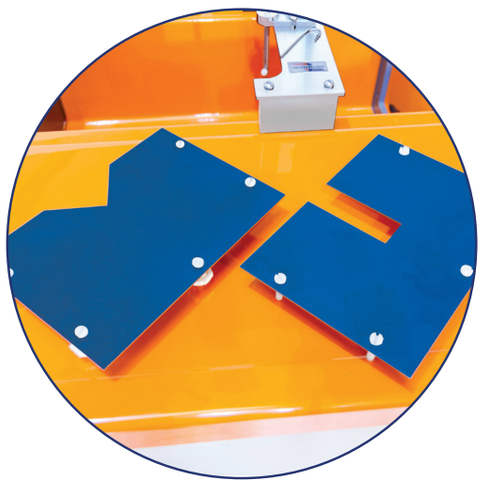
- Stiffling Baffle and Inlet Nozzle
- Vernier Hook & Point Gauge with Instrument Carrier
- Regular V Plate Weir 90°
- Large V Plate Weir 90°
- Large Notch Plate Weir 30mm
- Large Notch Plate Weir 50mm

F1-13a Advanced Weirs

- Large Trapezoidal Weir 30mm
- Large Trapezoidal Weir 50mm
- Large V Plate Weir 30°
- Dog Bone Weir

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F1-13-MKII V notch & rectangular notch weir plates



F1-13-MKII Vernier Hook & Point Gauge on Instrument Carrier



Ordering codes

- F1-13-MKII
- F1-13a

Issue: 3 Applications
URL: http://www.armfield.co.uk/f1 ChE ME CE IP

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