# armfield

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

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

## Hydraulic Ram - F1-24



If flowing water is suddenly brought to rest in a long pipe, a phenomenon known as water hammer occurs. This produces a pressure wave that travels along the pipe.

This principle is used in the hydraulic ram to pump water.

F1-24 Header tank

F1-24 Weight platform

mfiel



F1-24 Hydraulic ram pump

#### **Experimental content**

- ▶ To demonstrate the operating principles of the hydraulic ram
- Establishing flow/pressure characteristics and determining efficiency of the hydraulic ram

#### Description

The hydraulic ram comprises an acrylic base incorporating pulse and non-return valves and a supply reservoir on a stand which is fed by the hydraulics bench. An air vessel above the valve chamber smooths cyclic fluctuations from the ram delivery.

The weights supplied may be applied to the pulse valve to change the closing pressure and thus the operating characteristics.

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Technical specifications	
Supply head	300-700mm variable
Delivery head	750-1500mm variable
Requires Hydraulics Bench Service unit F1-10/F1-10-2	
Overall dimensions	
Length	0.75m
Width	0.33m
Height	1.62m
Ordering codes	
► F1-24	
Issue: 2 Applications	
URL: http://www.armfield.co.uk/f1	ChE ME CE IP

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