armfield

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 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.

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

Technical specifications

Supply head	300-700mm variable 750-1500mm variable		
Delivery head			

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	Applica			ations
URL: http://www.armfield.co.uk/f1	ChE	ME	CE	IP

We reserve the right to amend these specifications without prior notice. E&OE ⊚ 2020 Armfield Ltd. All Rights Reserved