

## Hydraulic Ram Pump (EDC-FM-124)

### EXPERIMENTAL DATA:

- Determine creation and effect of water hammer.
- Principle of a ram.
- Purpose of an air vessel.
- Effect of air volume in the air container and the flow velocity on the pump performance.
- Efficiency analysis.



### DESCRIPTION:

The apparatus can be used to demonstrate the creation and outcome of water hammer and to study how a hydraulic ram works. The water is fed to the ram via a long pipe at a gradient.

Snappishly disturbing the water flow can cause water hammer in the pipeline. This generally unsought effect is cast-off specifically in special equipment (hydraulic ram) to raise water to a developed level. Unlike conventional pumps, no additional mechanical energy is compulsory.

### SPECIFICATIONS:

- Water Supply and Flow rate measurement using base Module EDC-FM-100.
- Creation and effect of water hammer.
- Fixed overflow tank is used as a water foundation.
- High tank with variable pump head.
- Waste valve with changeable lift, closes cyclically due to flow force of the water.
- Tank with non-return butterfly valve and air volume is used as an air vessel.
- Air volume in the air vessel is varied by vent valve.



### TECHNICAL DATA:

- Ram
  - max. head 0.20 m
  - max. flow rate: 1.5 LPM

### DIMENSIONS AND WEIGHT:

- L x W x H (mm): 1200 X 650 X 1350 approx.
- Weight: 60 kg approx.

### SCOPE OF DELIVERY:

- 1 x EDC-FM-124
- 1 x Instructional Manual

