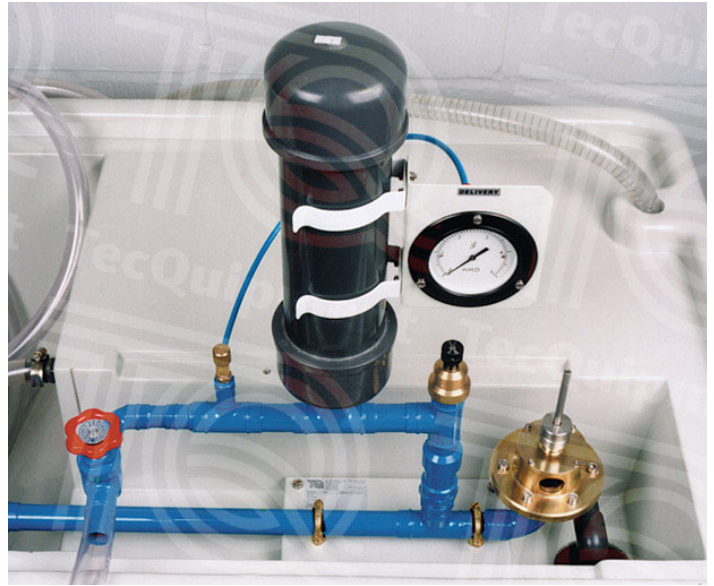


H31

Hydraulic Ram Pump

Shows the use of water hammer to create a pumping action

- Uses water hammer effect to pump water
- Works with TecEquipment's Volumetric Hydraulic Bench for easy installation
- Includes air vessel to reduce hydraulic shock
- Ideal for demonstrations to small groups of students
- Includes header tank and all necessary pipework



Description

The Hydraulic Ram Pump uses the water hammer effect. The momentum of a long column of moving water in a pipe causes the water hammer.

The ram pump is not a normal mechanically operated pump. A column of water in the supply (drive) pipe, moving at low velocity, is similar to a plunger. The energy in the plunger forces water from the supply into a delivery pipe.

The Hydraulic Ram Pump fits onto and works with TecEquipment's Volumetric Hydraulic Bench (H1D).

The apparatus has three main parts: the header tank, the pump and the interconnecting pipe work. The header tank fits on a wall, pillar or similar feature. The pump has:

- a supply pipe fitted with an inner and outer valve,
- an air vessel to reduce hydraulic shock, and
- a delivery section.

The outer valve has a weight platform, for loading with the weights provided. This changes the pump's cycle times.

Standard Features

- Supplied with a comprehensive user guide
- Two-year warranty
- Manufactured in accordance with the latest European Union directives

Essential Ancillaries

- Volumetric Hydraulic Bench (H1D)

Experiments

Demonstration of the water hammer effect to produce a pumping action.

Essential Services

Water supply:
From the Hydraulic Bench (H1D)

Operating Conditions

Operating environment:
Laboratory environment

Storage temperature range:
-25°C to +55°C (when packed for transport)

Operating temperature range:
+5°C to +40°C

Operating relative humidity range:
80% at temperatures < 31°C decreasing linearly to 50% at 40°C

Specifications

Packed dimensions and weight:
0.3 m³ and 20 kg

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