

Pipe Surge and Water Hammer Apparatus (EDC-FM-146)

EXPERIMENTAL DATA:

- Momentary flow conditions in pipe systems by means of investigation:
 - Study the wave propagation velocity in water.
 - Study of water hammer in pipes.
 - Sympathetic how a surge chamber works.
 - Natural frequency in the surge chamber.



DESCRIPTION:

Apparatus is used to generate and visualize water hammer in pipes and to demonstrate how a surge chamber works. The trainer contains the first pipe with a ball valve and a surge chamber and a second pipe section with a solenoid valve. Water hammer and surgency produced by first pipe using ball valve and in second pipe solenoid act for water hammer.

SPECIFICATIONS:

- Working of a surge chamber.
- Pipe section with ball valve and surge chamber.
- Surge chamber designed of a transparent tank.
- Pressure sensor behind the water chamber for measuring the pressure wave.
- Pipe section with solenoid valve and two pressure sensors for measuring water hammer.
- For water supply in storage tank Hydraulic Bench can be used.

DIMENSIONS AND WEIGHT:

- L x W x H (mm): 7000 X 900 X 2100 approx.
- Weight: 43 kg approx.

SCOPE OF DELIVERY:

- 1 x EDC-FM-146.
- 1 x Instructional Manual.

TECHNICAL DATA:

- Pipe section for pressure oscillations:
 - Length: 5900mm.
 - Inner diameter: 26mm.
 - Ball valve.
 - Surge chamber, PMMA.
 - Height: 850mm.
 - Inner diameter: 50mm.
- Pipe section for water hammer:
 - Length: 5900mm.
 - Inner diameter: 26mm.
 - Distance between sensors: 3000mm.
 - Solenoid valve, constant closing time: 20 to 30ms.
- Storage Tank: 50L.
- 230V, 50Hz, 1 phase.

