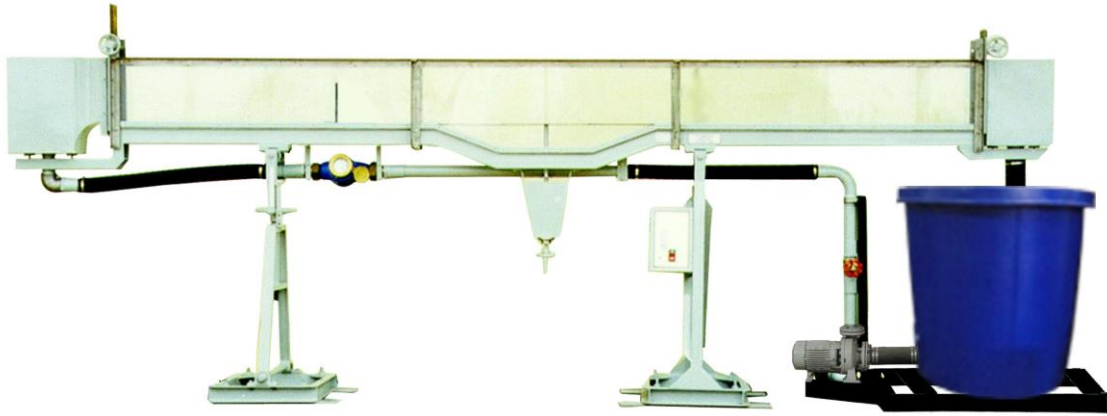


HF 510A TILTING FLOW CHANNEL, 100 mm. wide, Adjustable bed.



INTRODUCTION:

The settlement of river water sediments over a long period of time results in a shallow river bed. Occasional dredging may be required to deepen the river bed for navigation purpose. The adjustable bed flow channel allows a study of flow under the simulated shallow and deepened river bed.

GENERAL DESCRIPTION:

This is a self-contained open channel designed for studying flow phenomena with a change in bed slope. It is to be used with optional accessories and models below. The channel is of rectangular cross section supported by a rectangular steel frame. Side walls are transparent to allow full visual observation and are supported by adjustable steel brackets to ensure accurate wall alignment. Tilting can be adjusted by a manual screw jack. The middle section of the bed can be adjusted manually upward or downward by a screw. A head tank with a stilling baffle provides smooth flow and water is returned to the storage tank via an end tank. Models are attached to the top edges or bed of the flume by screws. Screw holes at the bed can also be used for pressure tapping to measure pressure loss along the channel length.

TYPICAL TESTS:

- Open channel flow.
- Flow measurement.
- Hydraulic jump.
- Continuity and energy equations.
- Discharge under sluice gate.
- Critical depth and its influences on upstream water levels.

TECHNICAL DATA:

- Channel size : 100 mm wide, 300 mm high and 4 m long or as required.
- Tilting adjustment : -2% to + 5%.
- Side walls : Clear acrylic tempered glass with clear vertical scale.
- Channel bed : Stainless steel.
- Bed adjustment : Upward and downward.
- Head tank : Stainless steel
- End tank : Stainless steel.
- Sluice gate : Stainless steel, built in at downstream end of the channel.
- Flow measurement : Water meter and stop watch.
- Power supply : 220V 1 Ph 50 Hz. Other power supply is available on request.

OPTIONAL ACCESSORIES AND MODELS

- Stainless steel hook and point gauge.
- Weirs : V-notch weir, rectangular notch weir, sharp crested weir, broad crested weir, crump weir, trapezoidal weir.
- Ogee weir.
- Dam spillway with different interchangeable downstream sections.
- Syphon spillway.
- Bridge pier, round or square.
- Culvert fittings: round or square edge.
- Vibration pile.
- Venturi flume.
- Sluice gate.
- Radial gate.
- Pitot tube with manometer board for measurement of flow velocity at various channel sections.
- Current meter.
- Roughened bed, gravel, sand, or corrugated.
- Wave generator with variable speed geared motor.
- Absorbing beach, plain, roughened, or permeable.

Net (unpacked) shipping dimensions WxLxH : 80 x 500 x 150 cm

Net weight : Approx. 440 kg