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Product Name :
Sediment Transport Apparatus

Product Code :
LBNY-0005-16000024



Description :

The channel sides are transparent in order that bed profile changes can be readily observed, and a section of one side is provided with graphical grid markings to permit quantitative assessments to be made of bedform dynamics. The unit consists of an inclinable channel mounted on a base plate, together with a discharge tank and recirculating pump. To commence a demonstration, sand is placed evenly along the channel bed, between the inlet tank and the overflow discharge weir. The channel slope is adjusted by means of a fine screw jack to which is attached an accurate slope indicator. Water is circulated around the system at one of the three selectable flow rates.

Experimental Capability:

- Mechanics of sediment transport
- Depositionary features and facies
- Fixed, smooth bed flow
- Flow over a fixed, gravel bed
- Flow over a mobile sand-bed
- Bed form hysteresis
- Computational work
- Local scour
- Flow structures

Technical Specification :

A model undershot weir and bridge pier are included for local erosion demonstrations. A water level gauge is supplied to calibrate the overshoot weir. A transparent, inclinable flow channel through which water can be re-

circulated by a pump over a mobile bed to demonstrate the whole range of bedforms from incipient particle movement to bed wash-out. The equipment is self-contained and may be bench-mounted in either the classroom or laboratory by virtue of its portability. An instruction manual is supplied which includes both experimental details and the appropriate theoretical background of sediment transport mechanics. Three different discharge rates can be selected (and measured) within the range 0.2 to 0.6 litres/sec. The channel slope can be adjusted within the range 0- 10%. The working section of the channel is 1.55 m long, 78 mm wide and 110 mm deep.

Dimensions And Weights:

Volume: 0.6m^3

Length: 2.5m

Width: 0.4m

Height: 1.1m.



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