

Product Name :
Sediment Transport Demonstration Channel

Product Code :
CHINAELABC3070003



Description :

Sediment Transport Demonstration Channel

Technical Specification :

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. 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 1.55m long, 78mm wide and 110mm deep. The equipment is self-contained and may be bench-mounted in either the classroom or laboratory by virtue of its portability. A model undershot weir and bridge pier are included for local erosion demonstrations. A water level gauge is supplied to calibrate the overshot weir.

Description of Sediment Transport Demonstration Channel

The unit consists of an inclinable channel mounted on a frame, 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 overfall discharge weir.

Water is circulated around the system at one of the three selectable flow rates.

The channel slope is adjusted by means of a fine screw jack to which an accurate slope indicator is attached.

The channel sides are transparent in order that bed profile changes can be observed, and a section of one side is provided with graphical grid markings to permit quantitative assessments to be made of bedform dynamics.

Technical Specification of Sediment Transport Demonstration Channel

Channel working section:

Length: 1.55m

Width: 0.78m

Depth: 0.11m

Discharge rate:

Three fixed flow rates between 0.2 and 0.6 litres /sec, selected by switch on pump

Slope: 0 to 10%

Sediment diameter: 0.1 to 0.3mm



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