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Product Name :
Model Sedimentation Tank Experiment

Product Code :
LBNY-0005-1190004



Description :

For hydraulic tracer and visualization studies, an accurate dye injection system is provided. A known volume of dye solution is injected just before the entry to the settling tank.

Water is taken from the laboratory mains supply and is fed to the settling tank via a flow meter. For studies of sedimentation, a slurry is prepared in a sump tank and pumped via a specially designed flow meter to join the fresh water stream just before entry to the settling tank.

This may be comparatively analyzed by the Imhoff cone technique or more accurately by drying and weighing. The sump tank is continually agitated by a flow sparge device to prevent settling of solids during an experiment. A well-mixed slurry of known concentration and flow enters the tank uniformly under an inlet weir.

Technical Specification :

Measuring flow regimes using a dye tracer and comparison of these with idealized flow models.

A rigid acrylic settling tank of 80L capacity can be fed by a mains water or a slurry supply. Measurement of sediment removal efficiencies.

Slurry is pumped from a 120L sump tank via a centrifugal pump. A sparging device in the sump tank keeps the slurry in suspension.

A dye injection system is incorporated to allow hydraulic tracer and flow visualization studies.

Effect of variables such as flow rate and baffle position on flow regimes.

Both supplies are fitted with a flow meter. Mains water flow meter range 0.5 - 5.0 liters/min; slurry flow meter range 0 - 2 liters/min.



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