

HM 161.72

Sediment trap



Learning objectives/experiments

- observation of bed-load transport along the flume bottom
 - ▶ rolling and saltation bed-load transport
- formation and migration of ripples and dunes
- together with HM 161.29 or HM 161.46
 - ▶ fluvial obstacle marks

Specification

- [1] experiments on bed-load transport in the experimental flume HM 161
- [2] sediment trap permanently mounted between experimental section and outlet element of HM 161
- [3] manual sediment feed using a bucket filled with sand
- [4] optionally available: sediment feeder HM 161.73 for an even sediment feed using a vibrating conveyor

Technical data

Sediment trap made of stainless steel
 ■ capacity: approx. 270L

LxWxH: 1000x830x1740mm (trap)
 Weight: approx. 620kg

Required for operation

sediment: sand (1...2mm grain size)
 collecting tank, water connection, drain

Scope of delivery

- 1 sediment trap
- 1 set of accessories
- 1 manual

Description

■ Bed-load transport in open channels

Flow in rivers, canals and coastal areas is often associated with sediment transport. Bed-load transport is the main transport mechanism. During bed-load transport, solids are moved along the flume bottom.

HM 161.72 enables experiments on bed-load transport and consists of a sediment trap and a bucket for sediment feed. The sediment trap prevents the sediment of entering into the pump or the flow meter of the experimental flume HM 161.

The near-bottom flow containing the sediment is fed into the trap, where the sediment sinks to the bottom and accumulates. The sediment-free water continues to flow into the outlet element. The sediment is manually removed and taken back to the feed.

HM 161.72 is not suitable for suspended load transport.

The sediment trap is mounted between experimental section and outlet element during the setup of the experimental flume. It is not possible to install the trap at a later date.

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Required accessories

HM 161 Experimental flume 600x800mm

Optional accessories

HM 161.73 Sediment feeder
HM 161.29 Sluice gate
HM 161.46 Set of piers, seven profiles