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HM 140 Open-channel sediment transport

Order code: 5201.07014000



Information about product price on demand

Parameters

Quantitative unit ks

GUNT HM 140

Open-Channel Sediment Transport system is designed for studying open-channel flow with and without bed-load transport. It includes a closed water circuit with a sediment trap, making it ideal for hydraulic engineering research. The 1.6m experimental section allows for detailed observations, and the smoothly adjustable inclination enables simulation of different flow conditions.

The side walls are made of tempered glass for optimal visibility, and corrosion-resistant materials ensure durability. The flow-optimized inlet element minimizes turbulence, improving measurement accuracy.

The sluice gate and bridge pier models allow for experiments with and without sediment transport. Flow visualization is possible using a contrast medium, and a measuring weir enables precise discharge measurement. This high-quality research system is ideal for hydraulic engineering education and research, enabling detailed studies of sediment transport and open-channel flow dynamics.

Technical Data & Specifications:

Experimental Section:

• Length: 1600 mm

• Flow cross-section (W \times H): 86 \times 300 mm

• Inclination adjustment: -1% to +3%

Water Tank:

• Capacity: 280 L

Pump:

• Power consumption: 1.02 kW

• Max. flow rate: 22.5 m³/h

• Max. head: 13.7 m

Sediment Trap Filter Element:

• Aperture size: 0.3 mm (49 mesh)

Measuring & Visualization:

- Flow visualization using contrast medium
- Discharge measurement via measuring weir
- Water depth measurement using a level gauge

Operating Conditions:

- 230V, 50Hz, 1 phase
- 230V, 60Hz, 1 phase
- 120V, 60Hz, 1 phase (UL/CSA optional)

Included Items:

- Experimental flume with inlet and outlet elements
- Adjustable inclination for controlled flow conditions
- Tempered glass side walls for clear observation
- Sluice gate and bridge pier models for flow experiments
- Flow-optimized inlet for low turbulence
- Sediment trap for coarse sand
- Closed water circuit with tank, pump, and flow control
- Measuring weir for discharge measurement
- Level gauge for water depth measurement

Dimensions & Weight:

• L × W × H: 3450 × 650 × 1200 mm

• Weight: approx. 215 kg

Required for Operation:

• Sediment: Sand (1-2 mm grain size)