

Operation Instructions

HM 160.52 Level Gauge
for Teaching Flume

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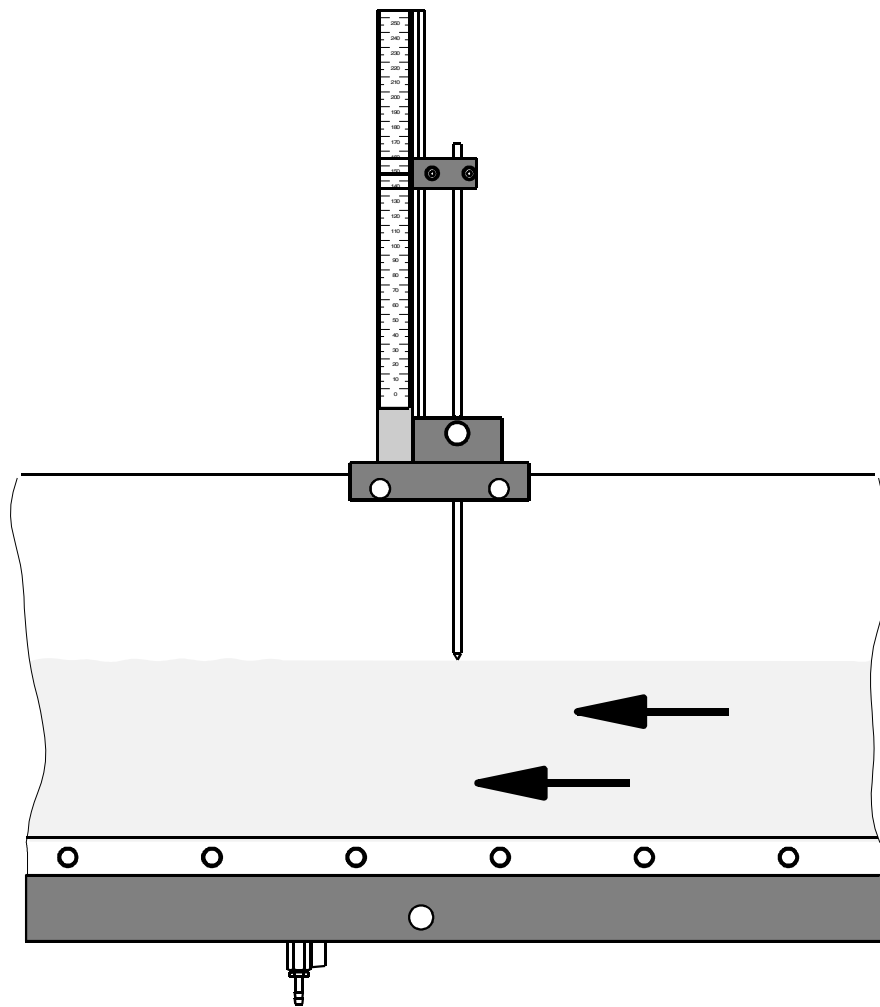
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HM 160.52 Level Gauge for Multi-Purpose Teaching Flume



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Operating Instructions

Please read and follow the safety comments before the first installation!

This apparatus is ment to be used only for Education, Teaching or Research.

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HM 160.52 Level Gauge for Multi-Purpose Teaching Flume



1 Introduction

The **HM 162.52 level gauge accessory unit** is used to measure water levels in the HM 160 multi-purpose teaching flume.

The level gauge is **movable** along the flow channel, allowing for **measurement of the water level over its entire length**.

A **scale with mm units** permits measuring points, i.e. water levels, to be precisely defined and reproduced. A clamp allows it to be **fixed at any desired point**.

In conjunction with the multi-purpose teaching flume, experiments can be performed with the HM 160.52 level gauge on the following **topics** (in some cases in combination with additional **G.U.N.T.** accessories):

- Measurement of water levels
- Measurement of flow speed
- Banked-up water level and settling curves
- Overflow and banking height of weirs
- Application of the continuity equation

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2 Unit description

The HM 160.52 level gauge is adapted to the HM 160 multi-purpose teaching flume in terms of size and shape.

2.1 Components

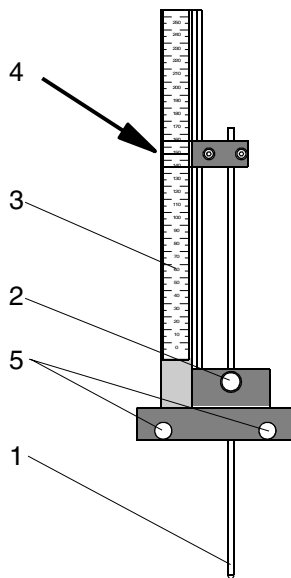


Fig. 2.1 Level gauge

The level gauge comprises the following components:

- **Probe (1)**
- **Fixing screw for height adjustment (2)**
- **Scale for water level over channel bed (3)**
- **Read-off point (4)**
- **Fixing screws for travel length (5)**

2.2 Function

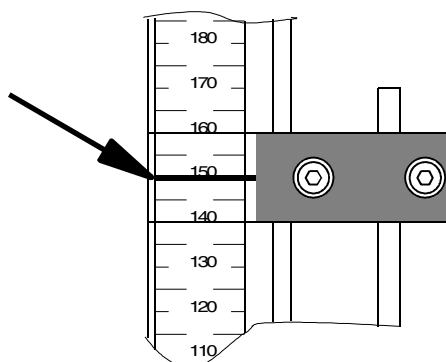


Fig. 2.2

The HM 160.52 level gauge is used to measure the water level longitudinally in the direction of flow in the HM 160 flow channel. For this, the device is simply mounted on the Plexiglas side walls of the flow channel and secured in position with the fixing screws (5).

The water level is read from a scale under a black line marking, affixed to a transparent Plexiglas tab. The measure matching the line marking is the set probe measure (see Fig. 2.2).

The zero-point can be adjusted by shifting the Plexiglas tab. To do this, the fixing screws of the tab must be loosened.

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The fixing screws ensure secure fixing of the level sensor in any position, including at a pre-set inclination. The probe can be fixed in place with the knurled screw. Water levels between 0 mm and 260 mm can be measured.

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3 Safety

3.1 Danger for life and limb



DANGER

- **DANGER!** Take care when handling the probe!
It is very sharp and is liable to cause injury!

3.2 Protection of the unit



ATTENTION

- **IMPORTANT!** Before moving the level gauge-
Parts may be bent or scratched.
- **IMPORTANT!** Do not assemble or disassemble the level gauge over flowing water!
Parts falling into the water may be swept away by the flow and get into the pump.



ATTENTION

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4 Appendix

4.1 Technical data

Dimensions:

(L x W x H) 100 x 20 x 350 mm

Scale: 0-300 mm

Scale units 1 mm

Max. travel Entire length of channel

Max. vertical travel 260 mm