

HM 163.51

Venturi flume



Learning objectives/experiments

- together with a level gauge:
 - ▶ discharge measurement in open channels

Specification

- [1] venturi flume for the experimental flume HM 163
- [2] venturi flume consisting of 1 base plate, 2 side elements, 1 clamping device
- [3] side elements with sealing lips

Technical data

Venturi flume

- LxWxH: 1200x404x500mm
- narrowest cross-section, WxH: 202x480mm

Side element

- LxWxH: 1006x101x480mm
- material: PMMA

LxWxH: 1200x404x500mm

Weight: approx. 40kg

Scope of delivery

- 2 side elements
- 1 base plate
- 1 clamping device
- 1 set of accessories
- 1 manual

Description

■ typical flow-measuring flume

Flow-measuring flumes are used to determine the discharge of a flume. Venturi flumes are specially shaped flumes with defined lateral contraction, sometimes also with a shaped bottom.

The constriction dams up the discharge. The backed-up water ensures that subcritical discharge occurs in the flume. The constriction is where acceleration from subcritical to supercritical discharge (including flow transition) takes place. Critical discharge is present at the narrowest cross-section. This results in a hydraulic jump in the expansion section of the venturi flume.

The venturi flume HM 163.51 consists mainly of two transparent side elements and a flat base plate. The transparent side elements allow to clearly observe the processes in the flume.