

# HM 161.31

## Broad-crested weir



The illustration shows a similar unit.

### Description

#### ■ flow over broad-crested weirs

Broad-crested weirs are control structures. Often, submerged overfall prevails so that the weir is fully submerged in the downstream water. Under certain conditions, broad-crested weirs can be used as measuring weirs.

HM 161.31 contains a cuboid shaped weir body with a sharp edges. Two additional elements can be fixed at the weir body to create rounded edges. Free and submerged overfall can be clearly demonstrated. The effect of the sharp-edged or rounded weir crest on the nappe is easily observable.

### Learning objectives/experiments

- free and submerged overfall at the broad-crested weir
- effect of the weir edges on flow processes
  - ▶ sharp-edged contour
  - ▶ rounded contour
- together with a level gauge:
  - ▶ determination of the discharge coefficient
  - ▶ determination of the discharge
  - ▶ comparison of the theoretical and the measured discharge

### Specification

- [1] broad-crested weir for the experimental flume HM 161
- [2] weir with sharp edges
- [3] 2 additional elements for rounded edges
- [4] hollow weir body with sealing lips

### Technical data

Weir body

- material: PVC

LxWxH: 1400x600x500mm

Weight: approx. 40kg

### Scope of delivery

- 1 weir body
- 2 elements for rounded weir edges
- 1 set of accessories
- 1 manual