

HM 160.31

Broad-crested weir



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 160.31 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 160
- [2] weir with sharp edges
- [3] 2 additional elements for rounded edges
- [4] weir body with sealing lips

Technical data

Weir body

- material: PVC

LxWxH: 260x96x120mm (weir body)

LxWxH: 40x86x120mm (element for rounded edges)

Weight: approx. 5kg

Scope of delivery

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