

HM 160.32

Ogee-crested weir with two weir outlets



Description

■ flow over ogee-crested weirs

Ogee-crested weirs are fixed weirs and form part of control structures. A flow transition to supercritical discharge occurs during flowing over the weir body. At the end of the weir downstream side, the supercritical discharge has a high flow energy. The excess part of this energy can cause damages. Therefore, energy should be dissipated, e.g. using a ski jump as weir outlet or a stilling basin.

HM 160.32 contains two ogee-crested weirs with different weir outlets (chute only and chute with ski jump).

The optionally available accessory HM 160.35 contains elements for energy dissipation to study further ways of energy dissipation.

Learning objectives/experiments

- effect of the weir outlet on flow processes
 - ▶ chute
 - ▶ chute with ski jump
- position of hydraulic jump depending on downstream water level
- together with a water level and a velocity meter:
 - ▶ determination of the sequent depth
 - ▶ determination of discharge and head
 - ▶ comparison of the theoretical and the measured discharge

Specification

- [1] 2 ogee-crested weirs for the experimental flume HM 160
- [2] ogee-crested weir with chute with ski jump
- [3] ogee-crested weir with chute
- [4] weir bodies made of PVC
- [5] weir bodies with sealing lips

Technical data

Weir with chute

- LxWxH: 172x84x160mm

Weir with chute with ski jump

- LxWxH: 210x84x160mm

Total weight: approx. 4kg

Scope of delivery

- 2 ogee-crested weirs
- 1 set of accessories
- 1 manual

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Required accessories

HM 160 Experimental flume 86x300mm

Optional accessories

HM 160.35 Elements for energy dissipation