

HM 160.35

Elements for energy dissipation



Description

■ energy dissipation downstream of an ogee-crested weir

Supercritical discharge directly downstream of a control structure has a high energy. The discharge can cause damages on the flume bottom. With the aid of stilling basins and elements like chute blocks, baffle blocks, and end sills, the flow energy is dissipated and the position of the hydraulic jump is affected. End sills are used to create a stilling basin and to keep the hydraulic jump in one position.

The elements for energy dissipation included in HM 160.35 are used together with the ogee-crested weir HM 160.32. All elements to be studied are mounted on a base plate. The weir with chute block included in HM 160.35 replaces the weir of HM 160.32. The end sills and baffle blocks are placed downstream of the weir. They can be used individually or combined.

Learning objectives/experiments

- comparison of the effect of different elements for energy dissipation
 - ▶ chute blocks
 - ▶ baffle blocks
 - ▶ end sills
- observation of the hydraulic jump with and without end sills respectively baffle blocks

Specification

- [1] elements for energy dissipation for the experimental flume HM 160
- [2] accessory for HM 160.32
- [3] all elements made of PVC
- [4] 1 weir with chute block, 2 baffle blocks with 5 rectangular blocks, 1 baffle block with 5 triangular blocks, 2 end sills with different height

Technical data

Weir with chute block

- LxWxH: 172x84x160mm

End sill

- LxWxH: 84x25x25mm
- LxWxH: 84x25x50mm

Baffle blocks

- LxWxH: 84x25x25mm
- blocks, WxH: 14x14mm

LxWxH: 1000x84x10mm (base plate)

Total weight: approx. 3kg

Scope of delivery

- 1 weir with chute block
- 3 baffle blocks
- 2 end sills
- 1 base plate
- 1 set of accessories
- 1 manual

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Required accessories

HM 160	Experimental flume 86x300mm
HM 160.32	Ogee-crested weir with two weir outlets