

HM 162.35

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 162.35 are used together with the ogee-crested weir HM 162.32. All elements to be studied are mounted on a base plate. The chute block included in HM 162.35 replaces a weir outlet of HM 162.32. 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 162
- [2] accessory for HM 162.32
- [3] all elements made of PVC
- [4] 1 chute block, 2 baffle blocks with 5 rectangular blocks, 1 baffle block with 5 triangular blocks, 2 end sills with different height
- [5] base plate with evenly spaced threaded holes

Technical data

Chute block

- LxWxH: 304x123x153,5mm

End sill

- LxWxH: 304x50x55mm
- LxWxH: 304x50x110mm

Baffle blocks

- LxWxH: 304x50x55mm
- blocks, WxH: 30x40mm

Base plate

- distance between 2 mounting positions: 50mm

LxWxH: 1400x304x15mm (base plate)
Total weight: approx. 19kg

Scope of delivery

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

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Required accessories

HM 162	Experimental flume 309x450mm
HM 162.32	Ogee-crested weir with two weir outlets