

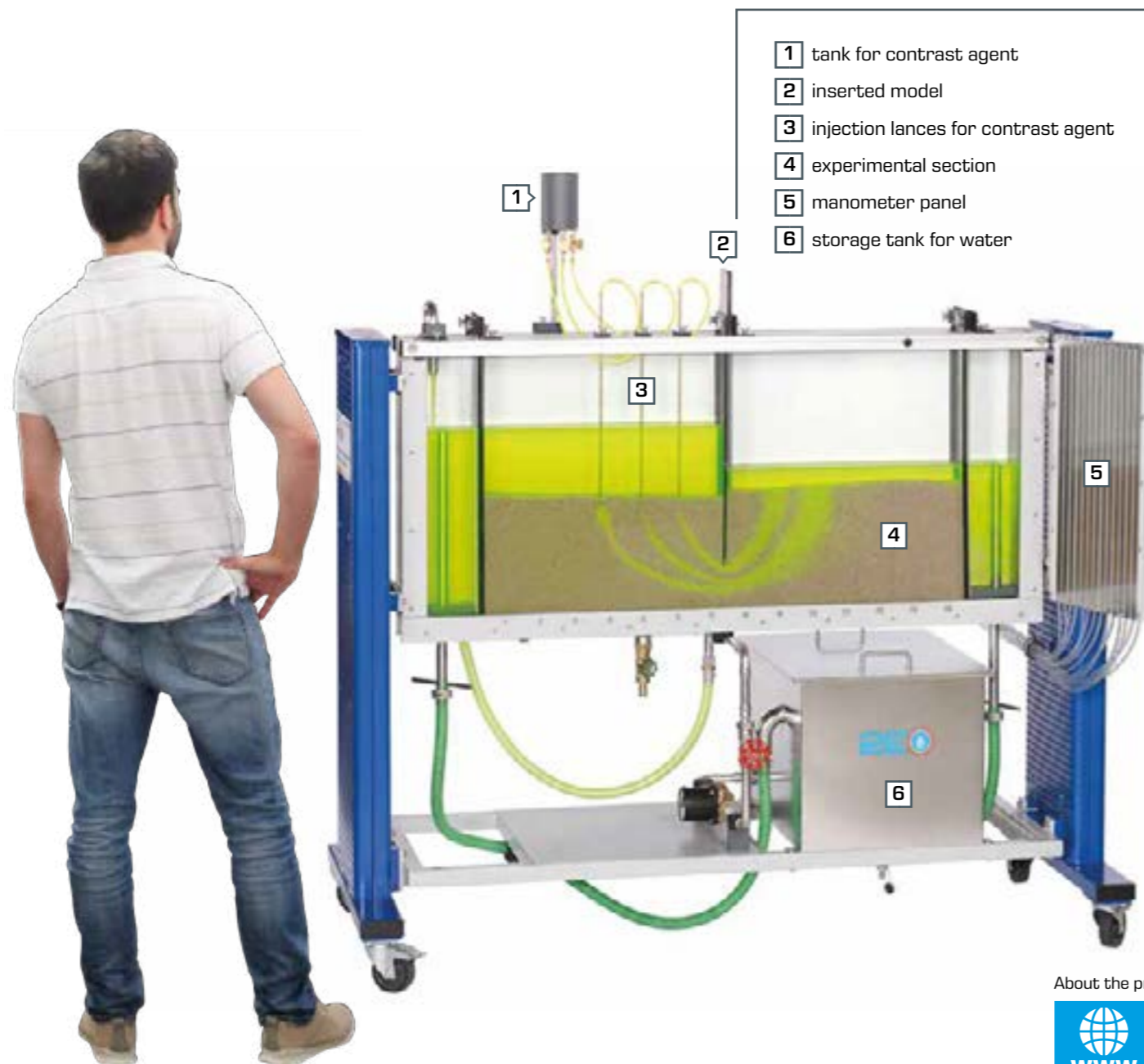
HM 169 Visualisation of seepage flows

Seepage flows – protection of groundwater and structures

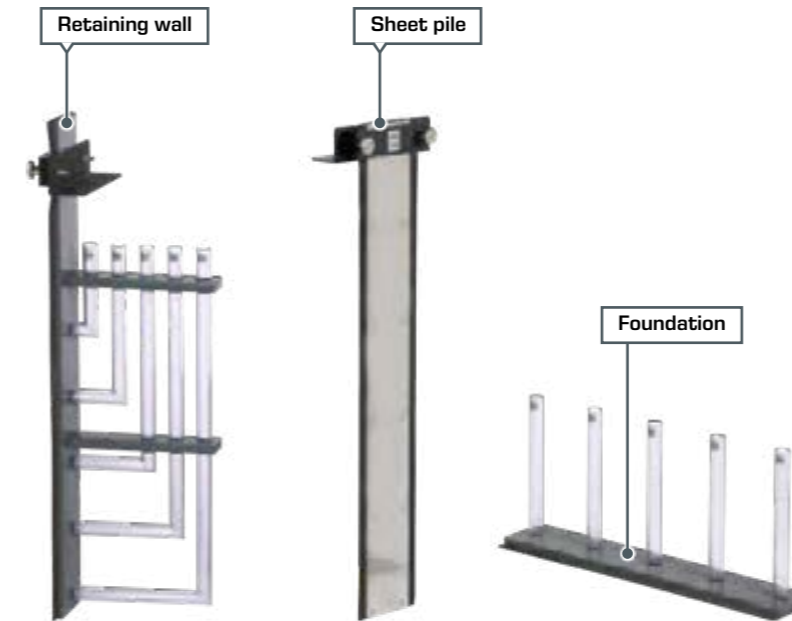
Seepage flows play a crucial role during construction in water-bearing layers. On the one hand, the flow through and flow around structures is relevant. On the other hand, the hydrostatic pressure acting on the structures is also of interest.

A descriptive method in the study of seepage and groundwater flow is the visualisation of the streamlines and their graphical representation as a flow net. The flow net provides information about the seepage of water through structures such as dams and sheet piles.

Our HM 169 device allows you to clearly visualise and investigate streamlines around structures. To do this, various models of typical structures which you can easily insert into the experimental section are available.



About the product:



By injecting a contrast agent, such as fluoresceine or ink, the streamlines can be made very clearly visible. The pressure curves of these structures are also displayed in both the "retaining wall" and "foundation" models. The groundwater levels in the experimental section can be measured easily and with great accuracy by using tube manometers.



The possibilities of HM 169 are demonstrated to interested members of staff at Regensburg University of Applied Sciences (Germany).

Learning objectives

- determining flow nets in permeable media graphically
 - ▶ streamlines under a sheet pile
 - ▶ streamlines through an dam
 - ▶ drainage at an open ditch
- determining the pressure curve at a foundation
- determining the pressure curve at a retaining wall
- groundwater levels over time in various models