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Product Name:

Vertical Visualisation Of Flow Fields

Product Code: LBNY-0005-12500012



Description:

Electrolytically generated hydrogen bubbles rise with the flow, flow around the model and visualise the flow. Different models are available: drag bodies (e.g. aerofoils and cylinders) or changes in cross-sections. Fine gas bubbles are perfectly suited to visualising flow fields. Due to analogies, many flow processes that occur in air can also be demonstrated by experiments in water. Water flows from bottom to top through the experimental section. The trainer consists of a vertical experimental section in which an interchangeable model is inserted.

Learning Objectives And Experiments:

Vortex formation, demonstration of Karman vortices

Qualitative observation of the velocity distribution in laminar flow

Visualisation of two-dimensional flows

Flow separation

Analogy to air flow

Streamline course in flow around and through models.

Technical Specification:

Electrolytically generated hydrogen bubbles visualise flow fields of different models

Low-turbulence flow using stabilisation tank with flow straightener

Bubble generator: platinum wire as cathode and frame of experimental section as anode

Closed water circuit with experimental section, storage tank, pump, valve to adjust the flow velocity

Cathode can be inserted in different positions

Setting cathode current, pulse and pause duration

Vertical experimental section with black background, LED illumination on both sides and 2 insert positions for the

model

Switch cabinet with displays for cathode current and flow velocity.



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