HM 170.13
Lift body aerofoil NACA 54118

Description

- **experiments on bodies immersed in a flow**
- **determination of drag coefficient and lift coefficient**
- **NACA 54118**

The lift body aerofoil is investigated in the measuring section of the wind tunnel HM 170. The lift body consists of an aerofoil section made of plastic and mounting bracket made of corrosion-resistant steel. The aerofoil is painted red and is fitted with guide panels at the ends. These ensure that the flow is optimally aligned with the aerofoil. The lift body is placed in the force sensor, this indicates the drag force and the lift force as a measured value in flow around bodies.

Learning objectives/experiments

- experiments on bodies immersed in a flow
- determination of the drag coefficient (c_d factor)
- determination of the lift coefficient
- together with the force sensor HM 170.40
  - determination of the moment coefficient

Specification

[1] aerofoil as lift body for experiments on bodies immersed in a flow
[2] accessory for the wind tunnel HM 170
[3] bracket made of corrosion-resistant steel
[4] aerofoil painted for smooth surface

Technical data

Aerofoil
- profile: NACA 54118,
- shape: asymmetrical
- LxWxH: 100x100x19,65mm
- material: SikaBlock M600
- painted in RAL 3000

Bracket
- corrosion-resistant steel
- Ø 4mm

LxWxH: 100x20x290mm
Weight: approx. 0,2kg

Scope of delivery

1 lift body

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Required accessories

HM 170	Open wind tunnel

Optional accessories

HM 170.40	Three-component force sensor