HM 170.26

Pressure distribution on an aerofoil NACA 54118

Learning objectives/experiments

- record pressure distribution on an aerofoil immersed in a flow as a function of the angle of attack

Specification

[1] determining the pressure distribution on an aerofoil immersed in a flow
[2] accessory for the wind tunnel HM 170
[3] bracket made of corrosion-resistant steel
[4] aerofoil profile NACA 54118
[5] 16 measuring points with hose connections
[6] display of the static pressures on the tube manometers HM 170.50 or in the electronic pressure measurement HM 170.55

Technical data

Aerofoil
- profile: NACA 54118,
- shape: asymmetrical
- LxWxH: 100x60x19,65mm
- material: AlMgSi1

Number of pressure measuring points: 16

Bracket
- corrosion-resistant steel
- Ø 4mm

LxWxH: 100x60x19,65mm
Weight: approx. ca. 0,6kg

Scope of delivery

1 aerofoil
1 set of hoses
1 set of instructional material

Description

- **experiments with different aerofoil angles of attack of the aerofoil profile NACA 54118**

HM 170.26 with the airfoil profile NACA 54118 – used in the wind tunnel HM 170 – allows the pressure distribution to be recorded. The aerofoil is used in the wind tunnel's force sensor. The angle of attack is varied by rotating the mount. The surface of the aerofoil is fitted with measuring holes, which are arranged so that interaction is virtually eliminated. Each measuring point is fitted with a hose connection. The aerofoil is enclosed by two side panels to prevent secondary flows.

The static pressures are displayed on the tube manometers HM 170.50 or in the electronic pressure measurement HM 170.55.

HM 170.26

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Required accessories

HM 170	Open wind tunnel
HM 170.50	16 tube manometers, 600mm
or	
HM 170.55	Electronic pressure measurement for HM 170