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**Product Name :**Supersonic Wind Tunnel

Product Code: LBNY-0005-16200019



## **Description:**

Supersonic flow and the occurring shock waves can be directly observed with the supplied Schlieren optic apparatus. The continuous operation can allow enough time to take measurements and to observe the phenomena. This an open, continuously operating supersonic wind tunnel with a rectangular measuring section. Transonic and supersonic flows from Mach 0.8 up to Mach 1.8 can be realized with interchangeable measuring sections and nozzle profiles. The tunnel is driven by a vacuum pump (included). The pump is effectively silenced so it can be placed in the same room as the wind tunnel. Four aerofoil models are supplied: a wedge, a double wedge, a bullet and a rocket. A flow straightener at the inlet ensures a low degree of turbulence.

## **Technical Specification:**

## **Experimental Capability:**

Demonstration of Schlieren method

Determination of Mach Number via the angle of shock waves

Comparison of theory and experiment

Observation of flow patterns around the aerofoils with the aid of Schlieren optics

Pressure distribution along a convergent-divergent nozzle

Pressure distribution and pressure loss in channel flow at high Mach number

Observation of occurring shock waves with the aid of Schlieren optics.

## **Laboratory Instrument India**

