Product Name :	**Product Code :**
Subsonic Wind Tunnel	ALABS-A43-072

Description :

Subsonic Wind Tunnel

Self-contained wind tunnel for the study of subsonic aerodynamics,
complete with two- component balance system and air speed indicator

• Special features:

- Contraction and Diffuser: precision glass fibre mouldings

- Test Section: clear acrylic, which retracts to permit access to the models.

- Adjustment of models can be made with the tunnel in operation.

- Fan: Variable speed motor driven unit downstream of the working
section permitting stepless control of airspeed between 0 and 26ms-1

- Balance: Lift and drag Lift

- 7.0N, Drag

- 2.5N, Sensitivity Â±0.01N

- Air speed: Indicated on inclined manometer directly calibrated in m/s

- Support structure: A strong steel frame including working surface and fitted with castors for easy movement

• Suitable for undergraduate and simple research work.

• Working section: 304mm wide x 304mm high x 457mm long (octagonal cross- section)

• Contraction area ratio: 3:1

• Motor rating: 1.5kW

• A user instruction manual is supplied

• Optional models and instrumentation allow:

- Investigation of the development of the boundary layer on a flat plate by measurement of total head distribution

- Flow visualisation studies around an aerofoil

- Measurement of pressure distribution around an aerofoil at various angles of attack or around a cylinder

- Measurement of lift and drag on an aerofoil with leading edge slot and trailing edge flap

- Velocity and pressure distribution measurements using a pitot static tube and yaw probe

- Measurement of drag for models of different shapes but common equatorial diameter

- Demonstration of flutter of an aerofoil

- Calibration of the wind tunnel velocity indicator using a pitot static tube

- Investigation of the wake behind a cylinder or aerofoil using a wake survey rake