

Product Name :
Air Flow Studies Apparatus

Product Code :
ELAB-DAC-03-0001



Description :

Air Flow Studies Apparatus

Technical Specification :

Boundary layer growth is determined by the measurement of the velocity profile at four stations along the pipe using a traversing Pitot tube.

A bend or mitred cascade elbow may be fitted mid way along the smooth wall pipe for comparison of pressure losses.

Air enters the smooth walled pipe through one of the two flow measurement nozzles provided. Pressure tappings along the length of the pipe permit the pressure gradient to be determined.

The equipment includes a long smooth walled pipe joined to the suction side of an electrically operated centrifugal fan. The fan discharge pipe terminates in a flow control damper for closed conduit work or a plate containing a small aperture for jet dispersion measurements.

A conventional flow measuring orifice plate is supplied for installing in the pipe upstream of the fan for additional demonstrations of pressure loss and recovery.

The equipment is mounted on a floor standing steel frame with an adjacent support for the extended suction pipe. Pressure measurements are made on a multi-tube inclinable manometer mounted on the support frame.

Air jet studies are carried out on the discharge side of the fan. A Pitot tube is traversed vertically and horizontally at different distances from the discharge orifice to investigate the dispersion properties.

Elab Engineering Equipments Manufacturers

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