

**Product Name :**

**Air Flow Studies**

**Product Code :**

**ALABS-A43-075**



**Description :**

**Air Flow Studies**

- The unit is self-contained and only requires connection to a single-phase electrical supply.
- Turbulence in the 80mm diameter test pipe is minimised by locating the pipe at the inlet of the centrifugal fan.
- A profiled bellmouth inlet prevents air-separation from the wall of the pipe at the entrance and straightening vanes suppress the formation of vortices.
- Tappings along the test pipe allow the pressure gradient to be measured with air velocity variable up to a maximum of 35m/s.
- A Pitot tube can be traversed across the pipe at five locations to allow boundary layer growth/development of velocity profile to be examined.
- Air flowrate is determined from differential pressure measurements across an orifice plate or two different inlet nozzles.
- Different bends and elboes can be fitted to allow frictional losses in fittings to be compared.

- Air jet dispersion experiments are carried out on the discharge side of the fan.
- A Pitot tube can be traversed laterally (across) and longitudinally (along) the jet to measure the changes in velocity as the jet disperses.
- All pressure measurements are performed using a bank of fourteen manometer tubes that can be inclined to increase sensitivity.
- An instruction manual is supplied that describes how to perform the air flow experiments and interpret the results, as well as how to install, commission and maintain the equipment.

#### Technical Details :

##### Value

210 l/s at 100 mm capacity:

0.15 m/s velocity range:

the 80 pipe

length 2.75m

the 50 mm interchangeable nozzles:

and 80mm

the 50 mm pipe orifice:

the 80 mm large pipe orifice:

the 100 mm large pipe orifice:

(downstream lengthxwidth):

the 200 mm large pipe orifice:



## Equipments Exporters

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