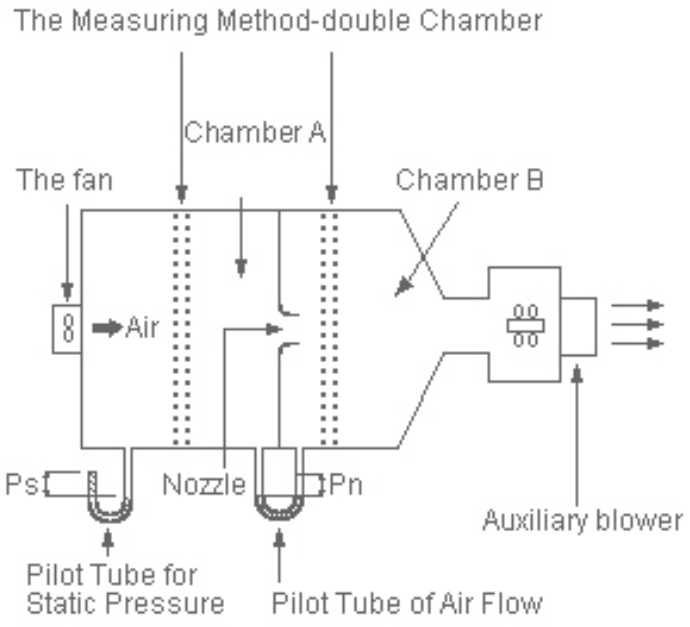
Air Flow Measurement

Air flow performance curves of fans are obtained by using the Double-Chamber method based on AMCA standard. The differential pressure between the front and rear of nozzles (differential pressure: Pn) is measured in order to calculate and obtain the air flow at the nozzle. At the same time, different pressures between chamber A and B (Static pressure: Ps) is measured and recorded.



By adjusting nozzles, the differential pressure between the front and rear of nozzles can be controlled. The examples have been demonstrated as follow.

Maximum air flow:

when opening nozzles and absorbing the air using the auxiliary blower to make the static pressure (Ps) equal to zero, the differential pressure between chamber A and B, Pn, will be at its maximum value.

Maximum static pressure:

if nozzles are closed the pressure in the chamber A will be at it's maximum value. The differential pressure, Ps, between the ambient air pressure and the pressure in the chamber can now be considered the maximum static pressure.

Air Flow Testing Machine