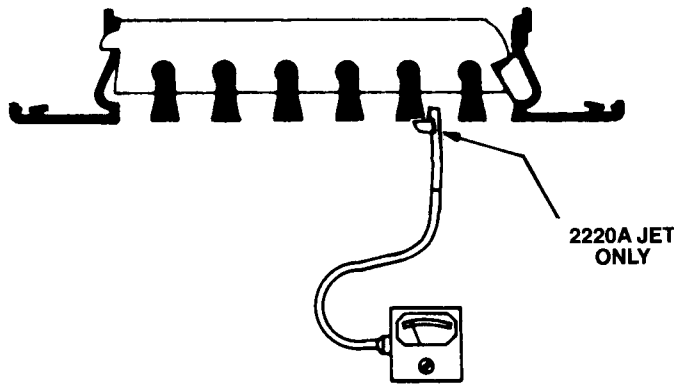


In order for a new air conditioning or ventilating system to perform to the engineers' plans and specifications, it must be properly balanced to deliver the required amount of air through each diffuser.

This volume of air is determined by the following method:

1. Using an ALNOR VELOMETER with a No. 2220-A Jet only, place the jet as shown in the diagram. Take a minimum of four (4) equally spaced readings and from these calculate the average velocity.
2. From the chart, select the proper "K" factor for the size and model diffuser you are testing:
3. Multiply the average of the four air flow readings by the "K" factor to determine the volume of air being delivered in CFM through the diffuser.
4. Thus $CFM = "K" \text{ factor} \times \text{Average Velocity}$.



NECK SIZE	"K" FACTORS
1½	0.055
2	0.085
2½	0.10
3	0.12
3½	0.13
4	0.14
5	0.19
6	0.25

EXAMPLE:

Determine the CFM supplied by a 2½" size "LD" diffuser, four foot (4') long, as follows:

1. Obtain velocity reading every six to twelve inches along the diffuser with the Alnor Velometer using a 2220-A Jet as shown in the diagram. This average is 1510 F.P.M. for the four foot section.
2. Select the "K" factor for the 2½" "LD" diffuser from the table, $K = 0.10$.
3. $CFM = "K" \text{ factor} \times \text{average velocity} \times \text{length of diffuser in feet}$. Therefore $0.10 \times 1510 \times 4 = 600$ CFM being supplied by the air diffuser.

Notes: _____
