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Notes.—Figures given are for center to face and for face to face finished dimensions. Where necessary manufacturers will make suitable allowances in patterns before casting.

Laterals do not extend beyond the 30-in. size at the present time. Box wrench to be used on bolting for large sizes.

Square head bolts with hexagonal nuts are recommended. 1½ in. diameter and larger stud with a nut at each end is satisfactory.

Hexagonal nuts for pipe sizes 1 in. to 40 in. can be conveniently pulled up with open wrenches of minimum design of heads. Hexagonal nuts for pipe sizes 48 in. to 100 in. can be conveniently pulled up with socket wrenches.

Flanges to be spot bored for nuts for sizes 32 in. to 100 in. inclusive.

TABLE 2. AMERICAN STANDARD, 250 LB. WORKING PRESSURE PER SQUARE INCH, EXTRA HEAVY FLANGE FITTINGS, STRAIGHT SIZES

REPORT OF COMMITTEE ON STANDARDIZATION OF THE USE OF THE PITOT TUBE

(Transactions, Vol. XX, p. 210)

The Committee rendered a careful report which included two tables and a list of references on the theory of the Pitot tube and the derivation of formulæ. An extract from the report is given below.

"The reading should be taken at a cross section where the pipe is straight and the flow undisturbed. This should be preferably at least 10 diameters from the fan outlet, from an elbow, or from a change in cross section in the duct. The readings should be taken over a plane at right angles to, and the tube should be pointed in a direction parallel to, the direction of the air flow.

The most difficult reading to take accurately in a current of air is the static pressure. The approved form of static pit shown by diagram B, is the form recommended for fan-testing work. There should be eight or more clean holes 0.02 in. in diameter, an equal number on each side of a ¼-in. tube 1/32 in. thick. The most approved form of Pitot tube combines the foregoing static pit with an impact tube as shown by diagram C, by means of which total, static, or velocity pressure may be read.

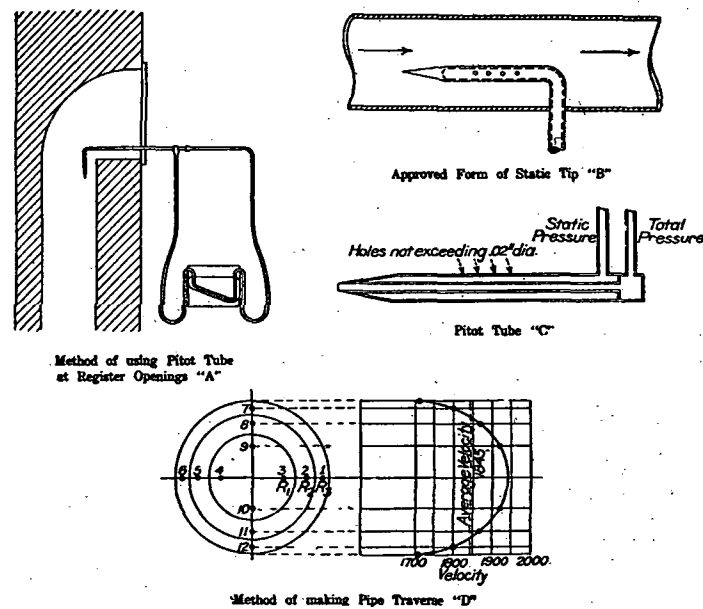


FIG. 1. STANDARD METHOD OF USING PITOT TUBE

In making a traverse of a rectangular duct, the cross sectional area may be divided into a number of smaller rectangles and a reading taken in the center of each small rectangle.

A round pipe should be divided into at least three concentric zones of equal area *per foot in diameter* and four readings taken on a circle drawn through the center of area of each zone or ring.