Thesis Title	A Study on the Efficiency of Locally-Made Modified Type S Pitot Tubes
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ABSTRACT

The objective of this study is to identify and quantify the design parameters that affect the performance of typs S pitot tubes in field use. Three different sizes of probes with stainless steel tubing of 1/8", 1/4" and 3/8", which were made in the laboratory using locally available materials, were studied. Calibration factors (Cp) and effectiveness of velocity measurements for type S pitot tubes were determined using a standard pitot tube as reference

Determination of type S pitot tube coefficients were done making by calibrations at a single-velocity setting near the midpoint of the normal working range of 1000 to 5000 fpm. (305 to 1524 m/min. or 5.08 to 25.4 m/s) and be made over the velocity range of interest (16 points velocity). The coefficients or calibration factors were found to be 0.83 and 0.84, and they are usually in the order of 0.85 ± 0.02. Measurement of the average velocity of a gas flow in a duct with three type S pitot tubes showed no difference in performance when compared to a standard pitot tube.

It can be concluded that it is technically and economically feasible to make type S pitot tubes locally with satisfactory performance.