

## ABSTRACT

The velocity distributions and turbulence intensities over a continuous cylindrical surface travelling in an incompressible fluid were experimentally determined by a constant temperature hot-wire anemometer. The results were compared with theoretical developments or previous studies and showed moderately good agreement.

An integral method for the solution of the boundary-layer equations given by previous workers was summarized, and analytical approximations for both continuous plane and cylindrical surfaces were developed in this research. They were found to be in agreement with those derived in previous studies.

The momentum and displacement areas were experimentally determined. These values, although not agreeing with the theoretical values for the laminar case, were of the same order of magnitude as theoretical values.

THE BOUNDARY LAYER ON CONTINUOUS CYLINDRICAL SURFACES

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CERTIFICATE OF APPROVAL OF THESIS

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