

## **An Experimental Investigation on the Amount of Drag Force of Sand on a Cone Moving at Low Uniform Speed**

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**Abstract :** The amount of resistance of a particular medium like soil to the moving objects is the interest of many areas in science. These include soil mechanics, geotechnical engineering, powder mechanics etc. Knowledge of drag force is also used for estimating the amount of momentum of fired objects like bullets. This paper focuses on measurement of drag force of sand on a cone when it moves at a low constant speed. A 30-degree apex angle cone has been used for this purpose. The study consisted of both loose and dense conditions of the soil. The applied speed has been in the range of 0.1 to 10 mm/min. The results indicate that the required force is basically independent of the cone speed; but, it is very dependent on the material densification and confining stress.

**Keywords :** drag force, sand, moving speed, friction angle, densification, confining stress

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