

## PERFORATED AND POROUS DISCS DRAG COEFFICIENT

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The prospects of applying the machines with permeable rotors require more careful and fundamental description of hydraulic characteristics of rotative permeable discs, than it was done before. This fact served as a ground for initiating the present research.

To measure the frictional coefficient of rotative discs a laboratory-scale plant was designed in the form of relatively heavy well balanced disc  $\varnothing$  100 mm, with weight ~350 g, placed on the vertical axis with footing on the rolling bearing. The axis is connected to the direct current electrical engine which is capable to function as an electro generator.

To determine secondary drag torque from the disc tested the following methods were used: 1) increasing the power at stationary rotation; 2) measuring the change of velocity of rotations change at dragging. The both of methods showed similar results.

A satisfying accuracy to determine drag coefficient is achieved by computer processing of signal.

The data obtained for the same discs as in the work published before proved generally the data obtained previously. At the same time the experimental data should be acquired for more precise description of the Re number influence.

Key words: porous rotor, drag coefficient, disc, drag torque.