Vladimirov, V. A.; **Yudovich, V. I.**; **Zhukov, M. Yu.**; **Denissenko, P. V.**

Rotating fluid flow in a gap between two parallel plates. (Russian. English summary)

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Mat. Model. 13, No. 2, 27-38 (2001).

Summary: We present the results of a theoretical and experimental investigation of the flow of a viscous incompressible fluid that rotates between two cylinders in a gap bounded in the axial direction by two parallel stationary plates. Using the multiscale expansion method, we construct an asymptotic model that describes the fluid flow for moderate Reynolds numbers.

MSC:

76U05	General theory of rotating fluids
76M45	Asymptotic methods, singular perturbations applied to problems in fluid mechanics
76-05	Experimental work for problems pertaining to fluid mechanics

Full Text: MNR