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REVIEW

Continuous Measurement of Unsteady Flow. By G. P. KATYS. (Translated from the Russian by D. P. Barrett.) Pergamon Press, 1964. 217 pp., 60*s*.

This is a peculiar book, which to the reviewer does not appear to fit any very certain gap in our knowledge. It concerns itself with devices needed for a very practical technological end—the measurement of unsteady flow—but gives very little practical information that can be immediately used. A good deal of descriptive and elementary mathematical discussion is given to the principles involved, yet important design features such as the tip clearance of rotating elements, shape of blades and friction-free bearings are barely mentioned and certainly not discussed in detail. No advanced study is made of the fluid dynamics of the devices; for instance, the growth and properties of boundary layers in unsteady flows. Thus the whole book gives the impression of a great deal of rather simple physics with little practical design information. It will certainly be of little value to the lonely engineer on the steppes who wishes to build his own flow measuring devices.

The two main sections of the book deal respectively with mass flow and volumetric flow systems, the former including an extensive discussion of a device which uses the Coriolis force due to rotation of an element in the meter. The latter part includes a relatively short section on hot-wire anemometers (quaintly translated as thermo-anemometers) and other calorimetric devices. An extensive bibliography, mainly of original Russian sources is included.

The translation of this somewhat wordy book is well done into English, but the proof reading is poor. Misprints, such as 'sylphon' for 'syphon' (twice on one page) abound. This book would have been greatly improved if halved in length.

J. R. D. FRANCIS