

# The Theory of Turbulent Jets



[The Theory of Turbulent Jets 下载链接1](#)

著者:Abramovich, G. N. (EDT)/ Schindel, Leon (EDT)

出版者:

出版时间:2003-3

装帧:

isbn:9780262511377

The author's first monograph on turbulent jets, in 1936, dealt solely with a free submerged jet. Since that time, the theory of the turbulent jet has been developed in many published works both in the USSR and abroad: it has been enriched with a large

amount of experimental material and has been applied in many new fields of engineering. In the last 10 years very substantial progress has been made, and it has now become possible to go beyond the free submerged jet and to solve the problem of a jet in a stream of fluid, to take into account the interaction between the jet and solid walls, to ascertain the relationship between the contour of the jet and the ratio of its density to the density of the surrounding medium, and to establish the characteristic features of a supersonic jet. This monograph contains the results of further research by the author and his colleagues, as well as a critical reappraisal of the more important theoretical and experimental data published by other investigators. The first section deals with the theory of a turbulent jet of incompressible fluid. It gives a systematic analysis of numerous experimental data on velocity profiles, temperature, and the impurity concentration, as well as the outlines of the turbulent mixing zone. The second section sets forth the theory of turbulent gas jets, including strongly preheated and supersonic jets. The theory of free turbulence in a gas, suitable in principle for any degree of compressibility, is revised, and the equations are derived for motion and heat exchange in the boundary layer of a jet at very high temperature. The third section solves several problems of the spreading of jets in finite and semifinite space, and the fourth section describes various applications of the theory of jets, many of which are reported for the first time or have been significantly revised.

作者介绍:

目录:

[The Theory of Turbulent Jets\\_ 下载链接1](#)

标签

评论

-----  
[The Theory of Turbulent Jets\\_ 下载链接1](#)

书评

-----

[The Theory of Turbulent Jets\\_ 下载链接1](#)