

English summary

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Macroscopic energy balances in fluid mechanics

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Summary. The principle of balance of mechanical energy is rather rarely present in fluid mechanics literature. This principle, however, has some useful applications. To gain some background, in addition to the principle of balance of mechanical energy, also the contents of the principles of mass balance and proper energy balance are described. The Bernoulli equation is commented on shortly. To illustrate the general equations obtained, details connected to applications in ventilation duct flows are given.

Keywords: fluid mechanics, balance of mechanical energy, duct fluid flow