

# REDUCTION OF ENERGY CONSUMPTION IN WATER PUMPING STATIONS

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## Abstract:

The aim of this paper is the reduction of the geometric height in order to have an optimum and total energetic height of the equipment of a water pumping station.

This height is in direct relation with the calculation of the power absorbed by a pump or an engine. This proposition is very simple and economic; it allows assuring the same service of water distribution and with an electrical energy profit. it's necessary to say that the necessary power absorbed by a pump is function, more over than the energy losses in the pipe, the geometric height by using the following expression  $(K w) = 9,81 * Q * h m t / \mu$ .

This method will lead us to a reduction of the energetic consumption of 30 % during the pumping and sassing a better service to the consumers.

**Keywords:** Energy profit; pumping stations pump; engine power; total energetic height flows (max. /h, med /h, win/h).