

Abstract

The invention is classified as a physicochemical method of natural and waste water treatment and can be used in the energy engineering, chemical, petrochemical, food and other industries, especially in treatment of process, domestic, precipitation, mining, oilfield, quarry water and the water of tailing pounds.

The purpose of the invention is to improve the treatment of natural and waste water, to increase the capacity of a moving bed pressure filter and also to ensure high efficiency of the cleaning of the moving bed.

The technical result is the expansion of the range of application of the moving bed pressure filter ensuring high efficiency of treatment of both low-contaminated natural water and highly contaminated waste water.

This result is obtained due to the use of additional stages of chemical treatment during water treatment (oxidizing agent, demulsifier, powder sorbent), the use of various types of a pressure flocculation reactor, grains for a single and double moving bed, which have different grain composition and density, the performance of four-stage cleaning of the moving bed, the use of a dual-flow moving bed pressure filter, as well as due to the use of the additional pressure flocculation reactor followed by the removal of severe contamination with the use of a pressurized hydrocyclone.

Fig. None