



High efficiency automatic water purification device

Summary:

This series of water purifier devices are flocculation, sedimentation, sewage discharge, recoil, water collection and filtration. It can achieve the automatic operation of a series of water purification devices without the need of personnel operation. It is an important unit to realize automatic management of waterworks. With the ZJ automatic dosing device and disinfection equipment produced by the company, it can become a fully functioning water purification station. (water purification plant).



This series of water purification devices not only have wide application range, good treatment effect, excellent effluent quality, but also have low water consumption, power consumption, small floor area, water saving, power saving and labor saving. It can save new energy-saving products of auxiliary pumps and facilities.

Scope of application:

- a. It is used as the main water purification device in rural, urban, industrial and mining enterprises where various rivers, rivers, lakes and reservoirs with water turbidity less than 3000mg / L are used as water sources.
- b. It has special adaptability to lake water sources with low temperature, low turbidity and seasonal algae.
- c. Pretreatment equipment for pre-treatment of high-purity water, beverage industrial water, boiler water, etc.
- d. Used in various industrial circulating water systems, it can effectively and greatly improve the quality of circulating water.
- e. It is used in the middle water channel system and takes the effluent of the sewage plant as the water source as the treatment equipment for purifying and recycling water.

Main features:

- a. In addition to the management of the primary pump house and dosing system, the water purification device itself meets the requirements of automatic operation from a series of operation procedures such as reaction, flocculation, sedimentation, sludge collection, sludge discharge, water collection, water distribution, filtration, recoil and sewage discharge. The personnel on duty need not operate and manage the water purification device as long as they regularly monitor and measure the water quality.
- b. The high concentration flocculation layer can make the impurity particles in the raw water get sufficient collision contact and increase the probability of adsorption. Therefore, it can



adapt to the water temperature and turbidity of various raw water, and the removal rate of impurity particles is high. Under certain service conditions, it also has the function of algae removal.

- c. The quick sludge concentration chamber and adjustable automatic sludge discharge system can ensure the timely elimination of excess sludge impurities, so as to ensure a stable impurity particle removal rate.
- d. The novel and original water collection system and the lowest water collection faucet make the water collection more uniform and effective, which not only improves the volume utilization coefficient, but also accumulates considerable power-saving effect because the water collection faucet is very small.
- e. High efficiency flocculation and sedimentation effect keep the quality of precipitated effluent in good condition.
- f. The automation of the water purification system not only ensures the efficient filtration of the water purification system (when the turbidity of the raw water is less than 3000mg / L, the turbidity of the filtered water can be maintained below 3mg / L), but also can be backwashed automatically. There is no need to set another backwashing pump or air compressor and other electrical equipment, which can save a lot of capital investment and daily operation, maintenance and maintenance costs.
- g. The self consumption rate is low, about < 5%, which plays a positive role in saving limited water resources.
- h. The floor area is small. Compared with general water purification structures, it can save more than 50% of the floor area, and the height is about 4.10m. It can be installed indoors and outdoors.
- i. It is convenient for expansion, transformation and reuse, relocation or reuse in other places

Design parameters:

Applicable raw water turbidity	Applicable raw water T	Effluent turbidity of purified water	Design surface load of sedimentation area	Filtration to design filtration rate	Filter flushing intensity	Flushing duration	Residence time	Inlet pressure
≤ 3000mg/L	Atmospheric T	<3mg/L	7~8M3/H-M2	8~10M/H	14-16L/S-M2	4~6 min.	40~45 min.	≈0.06 MPa