



AquaPure Future Series

Prefabricated integrated water treatment system
tailored for textile printing and dyeing industrial end-users



Technology safeguards the source of life, together creating a sustainable future
make every drop of water gets hope

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Concept overview

Due to the raising awareness of the sustainability of global water resources and the high complexity of wastewater characteristics and high demand for water in the textile printing and dyeing industry, it is Huadian's mission to solve the wastewater treatment problem in this industry stably and efficiently. The customized project was delivered and put into production in a short time, and continuously creating positive economic, accurate total cost investment, environmental and social benefits for the society.

Huadian is constantly contributing to the protection and recycling of water resources in the world.

Excellent performance



High standards



Fully customized



Fast delivery



High efficiency



Prefabricated modular water treatment system

Efficiently utilize every inch of space, every kind of resources and every second of time



Huadian uses the world's leading prefabricated technology to customize combined assembly modules according to needs, breaking through the challenges of the company's strict requirements on physical and chronological scales. Through factory prefabrication and pre-assembly of water tank modules, efficient transportation can be achieved, greatly reducing transportation costs; there is no need to cast concrete on site to build the tank body and equipment concrete house, which greatly reduces the construction period, is convenient for disassembly and assembly, and can be flexibly expanded to meet the company's future expansion needs.

Outstanding processing technology

Reduce costs and increase efficiency, making the enterprise worry-free about water discharge and reuse

Huadian adopts personalized and modular treatment solutions to provide enterprises with advanced process modules such as pretreatment, physicochemical treatment, biochemical treatment, deep treatment and sludge dewatering treatment. According to the personalized needs of customers, we provide wastewater discharge and reuse solutions to create a tailor-made water treatment system with low energy consumption, low maintenance cost and high treatment efficiency.



Characteristics of printing and dyeing textile wastewater

High organic load



Textile printing and dyeing wastewater usually contains high concentrations of organic matter, such as dyes, cellulose and starch, which makes its COD, BOD and other indicators significantly higher than other types of industrial wastewater.



Due to the extensive use of alkaline solutions in the dyeing process, wastewater exhibits a high pH value. The soluble matter content and salinity during wastewater treatment will exceed the standard, which is often the main challenge.

High alkalinity



High chroma



The various dyes used in the manufacturing process of textile printing and dyeing products will significantly increase the chromaticity of the wastewater.



The textile printing and dyeing industry has a wide variety of manufacturing processes (such as printing, washing, bleaching, etc.) and processed fiber types (such as cotton, polyester, etc.), different types of wastewaters will be generated,

Fluctuations in water quality



Fluctuations in water volume



The production cycle and output of textile printing and dyeing enterprises are usually not fixed, which leads to large fluctuations in the treatment capacity of the water treatment system, and will also bring considerable challenges to the system



Various pollutants



In addition to organic matter, wastewater also contains inorganic salts, heavy metals and other pollutants, resulting in complex composition. Therefore, enterprises usually need to be equipped with a complete and efficient system.

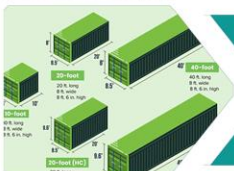
System Advantages

The assembled modular water treatment system will become a revolutionary product, replacing the traditional civil construction water treatment system and becoming the mainstream trend of the future water treatment industry. While the treatment performance is equal to or even better than the traditional civil construction model, this product model will greatly simplify the process of water treatment system commissioning, while achieving efficient use of various resources and reducing the total economic and time investment costs of enterprises.



Service life over 50 years

The tank body is made of carbon steel-stainless steel, and sprayed with anti-corrosion materials. The module connection seal is made of silicone waterproof seal. It eliminates corrosion, prevents aging, leakage and other fundamental risks, and prolongs the service life of the system.



Save more than 60% of area

The equipment will be highly integrated and placed in the assembled water tank, the size and position of the tank can be arranged and stacked according to the special requirements of the enterprise. Abandoning the strict requirements of the concrete tank for the site standards, and perfectly adapted to every site conditions.



Energy saving more than 70%

By prefabricating standard modules, civil construction is reduced, carbon emissions generated during the construction process are reduced. By building a smart management platform, system operation status are monitored in real time, process parameters are intelligently adjusted, avoiding resource waste and unnecessary energy consumption.



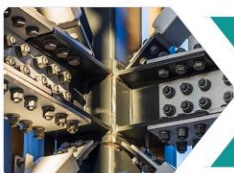
Construction period reduced by more than 80%

Since the production of the tank modules and the integration of equipment will be completed in advance, the workload of on-site construction will be greatly reduced.



Secondary pollution during construction reduced by more than 90%

No need for large-scale civil construction on site, and the installation materials will be standardized and transported uniformly. The secondary pollution generated during the entire construction process, such as waste gas, wastewater and solid waste, will be basically eliminated, which will provide a demonstration effect for sustainable engineering.



The recycling rate of the tank reaches 100%

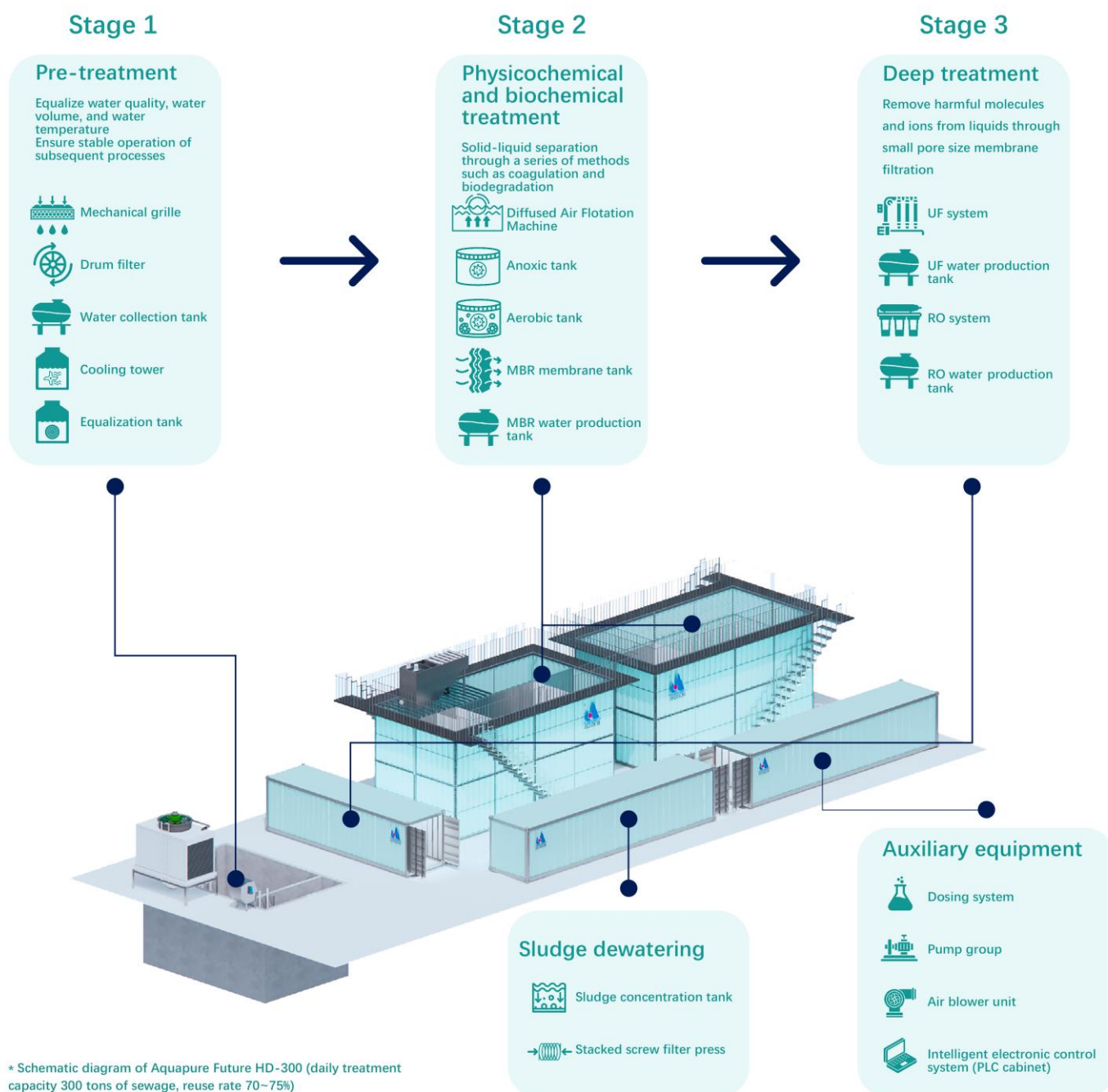
The modules are fixed by bolts, so the disassembly process is extremely simple and enterprises can flexibly increase capacity according to their future plans.

Process Flow Overview



System Introduction

Huadian's modular wastewater treatment solution can respond quickly to typical water quality conditions in the textile printing and dyeing industry, maximizing timeliness, stability and efficiency. If the water quality of an enterprise is special, such as one or more parameters overly exceeding the standard, or the water quality and quantity are extremely unstable, Huadian will continue to follow up and provide the enterprise with efficient and customized module matching to ensure the stable operation of the system. The modular water treatment system meets the needs of every enterprise and perfectly adapts to the conditions of every factory.



Mode of system delivery



Turnkey project

In the early stage, we will confirm the selection of standardized or customized solutions with customers.

We use the complete industrial chain to provide customers with:

water treatment system design, production in Chinese factories, full system assembly in Chinese factories, qualified full water commissioning, packaging and shipment, on-site construction, assembly and commissioning, training of customer-designated personnel on relevant water treatment operation knowledge, maintenance and other comprehensive services, ensuring 100% turnkey mode and efficient lifelong service of the system.

We ensure system stability and high efficiency, while ensuring customer loyalty and service stability and continuity.



High degree of automation

Connect the self-developed online monitoring and management system and the electronic control unit to each module of the system.

The system will maximize the degree of automation.

Efficiently manage the operation efficiency of the system, reduce the system operation cost, eliminate failures, reduce risks, and adapt to changes in production and water quality.



Remote control

Each system will be connected to our integrated online management system to monitor operating data in real time, actively intervene from the cloud server, and eliminate every potential risk.

A professional team will remotely protect the company's water treatment. Continuously optimize system efficiency through continuous data feedback.



Pilot Project

Customers can choose to install a small-volume water treatment system first.

We evaluate project feasibility and site suitability by delivering a standardized pilot water treatment system.

We reduce risks and ensure that each system is perfectly adapted to the local environment.



Assembly and construction

All equipment will be fully preassembled in our Chinese factory and shipped after full water commissioning.

This greatly reduces the cost of shipping production.

On site, the only need is to bolt the water tank module and connect the water pipes and wires to the system, which greatly reduces the construction period.



Global agents and top-tier suppliers

We cooperate with high-quality international suppliers we trust to provide enterprises with the most reliable and high-quality equipment. With a stable global supply chain system, we can respond to customer needs as quickly as possible and provide spare parts, chemicals, membranes and other after-sales services efficiently.

The localized agent network provides a service model tailored to local conditions, 100% adapting to local culture, understanding local regulations, and understanding professional knowledge, providing customers with the most intimate and timely professional services.



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