



AF WATER SYSTEMS EQUIPMENT CO LTD

UFF JET WASH® Regenerative Media Filter System

UFF JET WASH® Regenerative Media Filter System

UFF JET WASH® Regenerative Media Filter system is an environmentally friendly, energy-saving, automated control filtration system. It achieves water-saving and energy-saving effects by recycling perlite powder without backwashing, and combining it with frequency conversion technology to save electricity.

The working principle of UFF JET WASH® Regenerative Media Filter System

Through the patented technology “JET WASH”, the perlite powder is washed off the surface of the filter element and combined with the water impurities trapped in the tank. The perlite powder and impurities are combined through the automated control system and then re-covered to the filter element on the filter to form a new layer of filter membrane for a new filtration process.

This process is called “activated regeneration”. The UFF JET WASH® Regenerative Media Filter System recycles filter materials through an “activated regeneration” process, eliminating the need for backwashing to remove trapped water impurities and saving up to 90% of water and wastewater compared to traditional sand tank filters emission.



UFF JET WASH® Regenerative Media Filter System

Features of UFF JET WASH® Regenerative Media Filter System

The working principle of UFF JET WASH® Regenerative Media Filter System:

The filter material can be recycled and reused without backwashing. It saves up to 90% of water and wastewater discharge compared with traditional sand tank filters. It also saves the cost of heating and dosing of new water.

Designed in accordance with NSF international standards (NSF/ANSI 50-2019), the UFF JET WASH® perlite powder recycling filter has a filtration rate of $3\text{m}^2/\text{m}^2/\text{hr}$. It is a slow fine filtration with high filtration accuracy and can filter out impurities above 1 micron in the water body, the turbidity of the effluent after filtration can be kept below 0.1NTU, making the water clear and stable; there is no need to add flocculants, and 30% less water treatment chemicals are used than traditional sand tank filters.

The circulating filtered water flow only needs to pass through a 2mm perlite powder coating, the working pressure is $<100\text{kPa}$, and the water head loss is small. At the same flow rate, the matching water pump power is smaller than that of the traditional sand tank filter, saving 30% energy.

Using frequency conversion technology to control the filter circulating water pump, the water pump speed can be set according to actual usage, saving 50% of energy consumption.



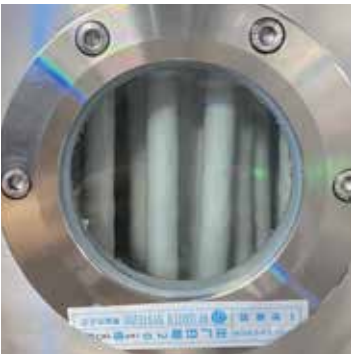
UFF JET WASH® Regenerative Media Filter System

Features of UFF JET WASH® Regenerative Media Filter System

Material safety and stable performance

The tank body of UFF JET WASH® Regenerative Media Filter is made of 304 stainless steel or 316 stainless steel, which has good corrosion resistance, heat resistance, low temperature strength and mechanical properties.

The UFF JET WASH® Regenerative Media Filter control system is developed and produced by an Australian technical team based on more than 30 years of swimming pool construction experience. After many years of installation practice at home and abroad, the system has stable operating performance and meets the actual needs of most plantrooms. The control system adopts touch screen operation, one-click direct access, and a simple interface; it has a remote monitoring function. By connecting to the network, the operator can check the current operating status of the equipment through various connection methods such as mobile phones, tablets, and computers.



UFF JET WASH® Regenerative Media Filter System

Features of UFF JET WASH® Regenerative Media Filter System

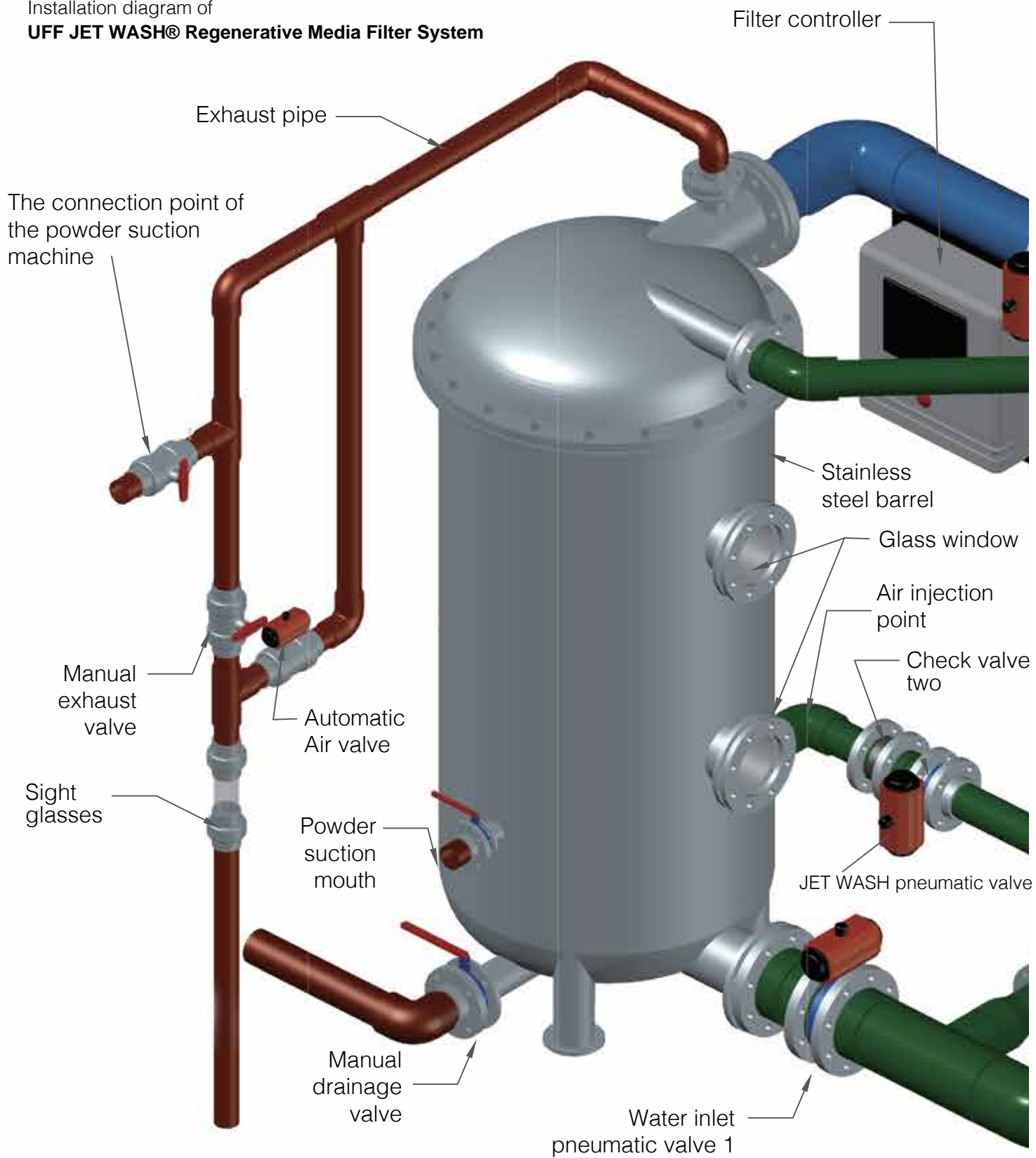
Small footprint and flexible design

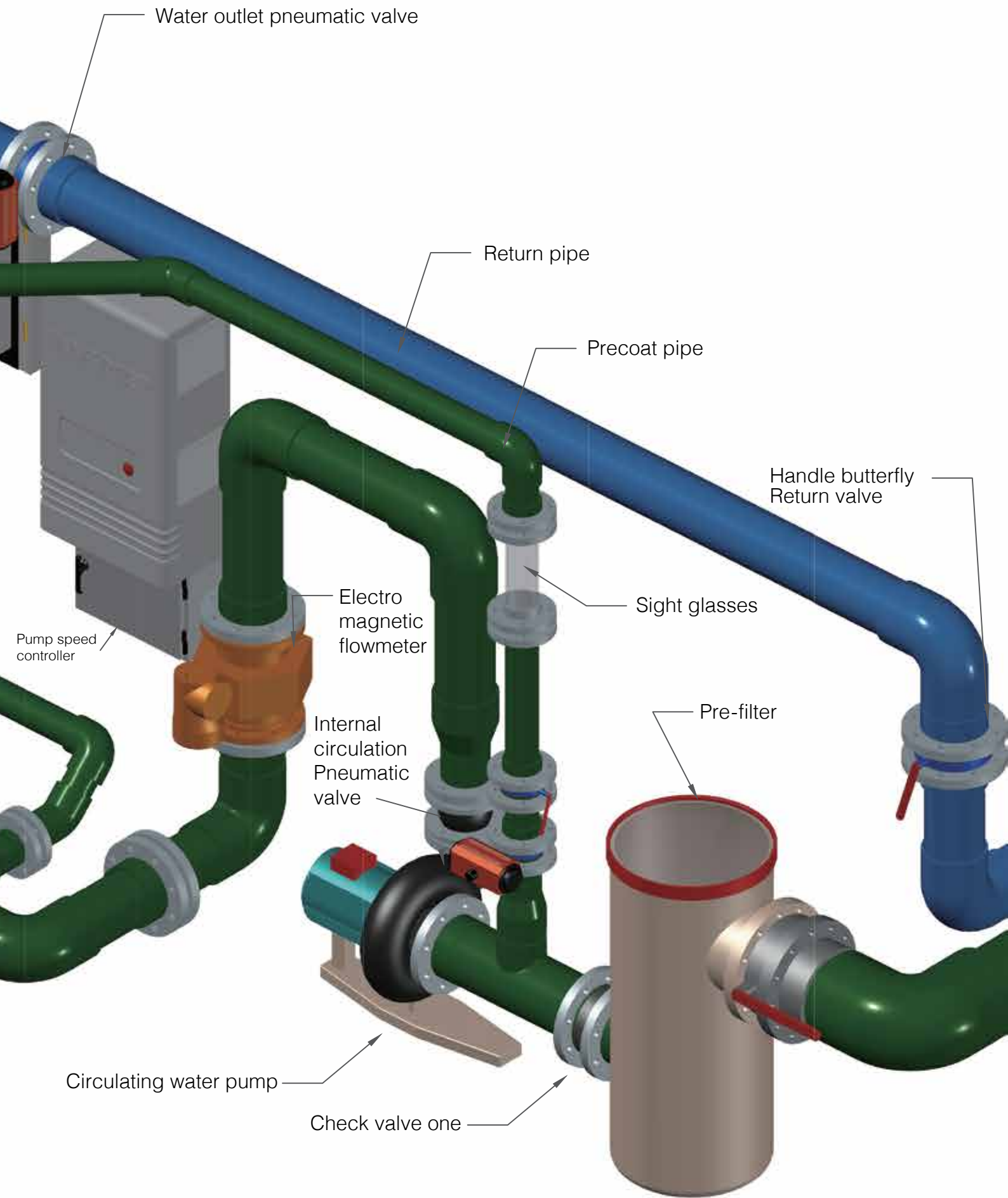
Each filter element in the UFF JET WASH® Regenerative Media Filter tank is an independent filtration unit. With the same volume, its total filtration area is about 4 times that of a traditional sand tank filter; at the same filtration flow rate, it saves 75% of the floor space and construction and piping costs compared to traditional sand tank filters.

UFF JET WASH® Regenerative Media Filter can be customized according to the machine room and installation needs. Models with different heights can be selected, and the orientation of each flange can be changed to adapt to various types of machine rooms, especially the renovation of old machine rooms. Situations with higher space requirements, its pipeline is shorter, more compact and more malleable.

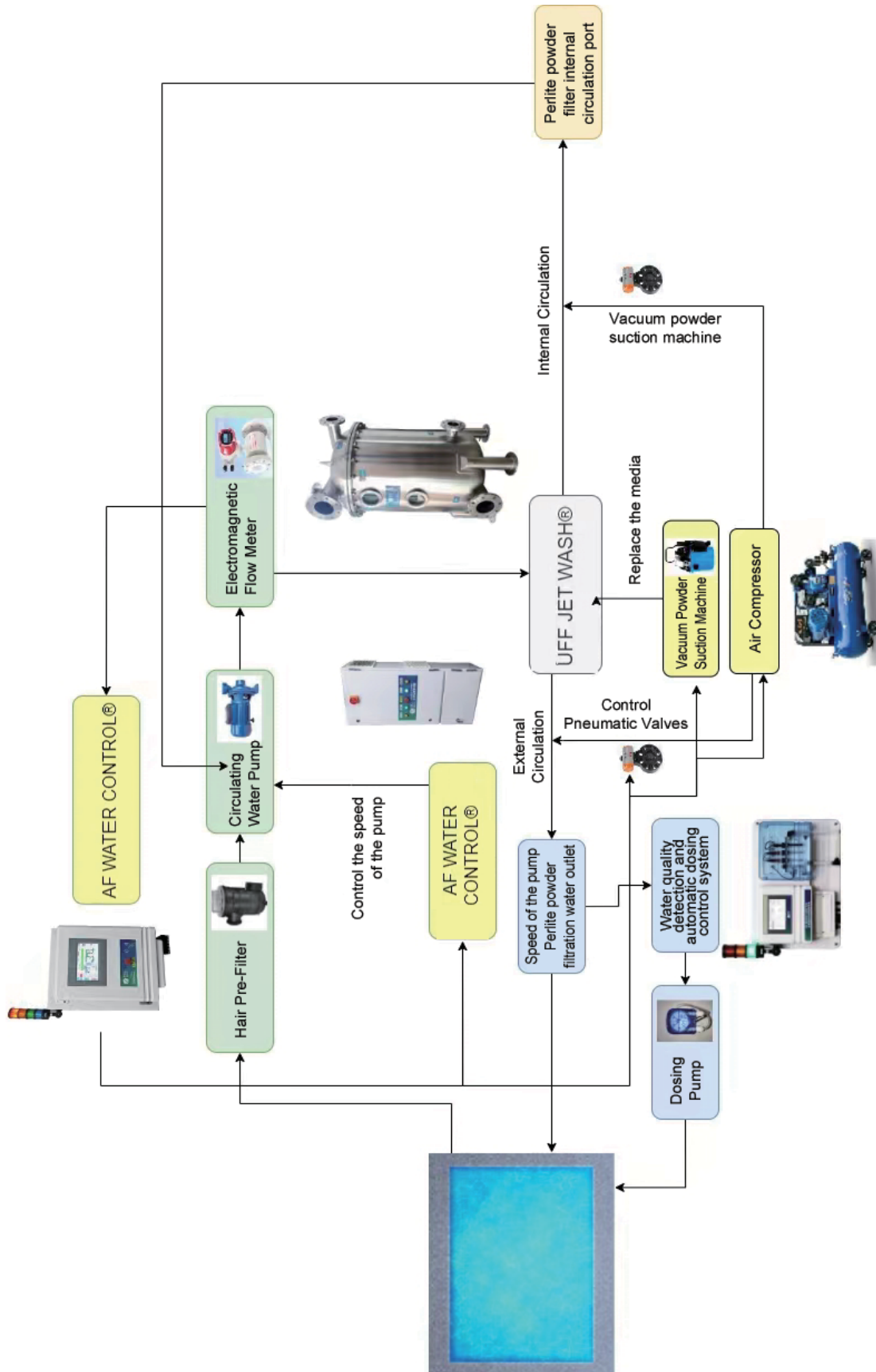


Installation diagram of
UFF JET WASH® Regenerative Media Filter System





UFF JET WASH® Regenerative Media Filter System Process



UFF JET WASH® Regenerative Media Filter System

UFF JET WASH® Regenerative media filter selection table

ATF Series						
Model	Barrel Diameter (mm)	Filter Area (mm)	Circulating Flow (m ³ /hr)	Power head according to 14 meters	Perlite Powder / Time(kg)	Water inlet / outlet pipe diameter
AFT-810	Φ810	47	140	11KW	18	DN200
AFT-860	Φ860	53	160	11KW	21	DN200
AFT-920	Φ920	60	181	15KW	24	DN200
AFT-970	Φ970	68	204	15KW	27	DN200
AFT-1020	Φ1020	76	228	15KW	30	DN250
AFT-1070	Φ1070	84	253	15KW	33	DN250
AFT-1120	Φ1120	93	280	15KW	36	DN250
AFT-1180	Φ1180	103	308	18.5KW	40	DN250
AFT-1230	Φ1230	112	337	18.5KW	44	DN250
AFT-1280	Φ1280	123	368	22KW	48	DN250
AFT-1330	Φ1330	133	400	22KW	52	DN250
AFT-1380	Φ1380	145	434	22KW	56	DN300
AFT-1440	Φ1440	156	469	22KW	60	DN300
AFT-1490	Φ1490	168	505	30KW	65	DN300



UFF JET WASH® Perlite Powder Circulation Regenerative Filter Selection Table

AFM Series

Model	Barrel Diameter (mm)	Filter Area (mm)	Circulating Flow (m ³ /hr)	Power head according to 14 meters	Perlite Powder / Time(kg)	Water inlet / outlet pipe diameter
AFM-660	Φ660	18	55	4KW	8	DN100
AFM-710	Φ710	22	65	4KW	9	DN150
AFM-760	Φ760	25	76	5.5KW	10	DN150
AFM-810	Φ810	29	88	5.5KW	12	DN150
AFM-860	Φ860	34	101	7.5KW	13	DN150
AFM-920	Φ920	38	114	7.5KW	15	DN200
AFM-970	Φ970	43	128	7.5KW	17	DN200
AFM-1020	Φ 1020	48	144	11KW	19	DN200



UFF JET WASH® Perlite Powder Recycling Filter Selection Table

AFS Series

Model	Barrel Diameter (mm)	Filter Area (mm)	Circulating Flow (m ³ /hr)	Power head according to 14 meters	Perlite Powder / Time(kg)	Water inlet / outlet pipe diameter
AFS-450	Φ450	6	17	2.2KW	3	DN50
AFS-500	Φ500	7	21	2.2KW	3	DN80
AFS-550	Φ550	9	27	2.2KW	4	DN80
AFS-600	Φ600	11	33	2.2KW	5	DN80
AFS-660	Φ660	13	39	4KW	5	DN100
AFS-710	Φ710	15	46	4KW	6	DN100
AFS-760	Φ760	18	54	4KW	7	DN100
AFS-810	Φ810	21	62	4KW	8	DN150



AF WATER CONTROL® Regenerative Media Filter Controller

BY UFF JET WASH® Regenerative Media Filter

AF WATER CONTROL®

Regenerative Media Filter Controller uses a 10-inch high-resolution LCD touch screen control, which is easy and fast to use. Provides a simple and clear on-screen menu. The operator only needs to click the button on the screen to enter the corresponding interface and start the filter for automated processes, which greatly simplifies the operation of the plantroom and reduces later maintenance and repair work.

AF WATER CONTROL®

Regenerative Media Filter Controller comes with Internet + remote monitoring function.

By connecting to the network, the operator can check the current operating status of the equipment through various connection methods such as mobile phones and computers. Usually, a main account can be set up with multiple operators, allowing multiple parties to view the real-time operating status of the device at the same time; at the same time, a main account can be set up with multiple networked devices, so that multiple devices can be integrated together manage.

AF WATER CONTROL®

Regenerative Media Filter Controller automatically records detailed records of equipment operation and backs them up to a shared cloud. When abnormal monitoring conditions occur, the operator will be notified immediately via email or mobile phone message. The operator can log in to the remote monitoring system through the device cloud assistant software, use data logs or charts to find the cause of the abnormality or failure, repair it, and relieve the alarm. The data provided by the



AF WATER CONTROL® Regenerative Media Filter Controller

can be used for post-data analysis to develop more energy-saving operating plans. By analyzing historical data and determining the peak and low peak periods of equipment usage, a better energy-saving plan can be formulated and the corresponding equipment startup time and running time can be set to achieve the goal of high efficiency and energy saving.

Controller main power supply	AC220V-240V/50-60Hz
General power	1500W
Pneumatic valve solenoid valve	DC24V
Water/ Air pressure sensor	Power supply: DC24V analog output: 4-20mA
Electromagnetic flowmeter	Power supply PD024V supports Modbus RTU communication protocol connected by 485
Pump speed regulating frequency converter	Power supply: 380VAC, control the speed of the water circulation pump, communication protocol with 485 interface, Modbus RTU
Temperature sensing of the control cabinet	Thermal resistance
Vacuum	Operating voltage: 220V, power: 1200W
Operating temperature	0~40°C
Moisture content	10%~90% (no frost)
Waterproof rating	IP55
Communication protocol	Support RS485 interface and Ethernet interface, standard Modbus protocol



AF WATER SYSTEMS
AF WATER CONTROL
过滤器自动控制系统

急停按钮

CARD

AF WATER CONTROL® Water analyzer and chemical dosing control system adopts advanced Australian technology, which combines electrode probe, dosing pump and touch screen control, and remote monitoring technology to detect water quality in real time and link the chemical dosing pump automatic dosing to maintain water quality stability.

AF WATER CONTROL® Water analyzer and chemical dosing control system can detect water quality indicators such as water temperature, PH (acid alkalinity), ORP (reduction potential), residual chlorine, turbidity in real time, and start the phase according to the water quality detection results. The corresponding dosing pump is automatically used to control the stability of water quality within the scope stipulated by the state.

AF WATER CONTROL® Water analyzer and chemical dosing control system can be connected to a 220VAC, 24VDC dosing pump or salt chlorine machine. Through the control system, the corresponding chemical dosage can be automatically added according to the real-time detection results of the electrode probe. It can also set the time point of dosing, set the maximum dosage, realize automatic detection, automatic dosing, accurate chemical use, avoid accidental injury and environmental pollution caused by inadvertent chemical use, so that the water quality is always stable within the scope of national regulations.

AF WATER CONTROL® Water analyzer and chemical dosing control system adopts full touch screen operation, one-click direct access, simple interface; with remote monitoring function, by connecting to the network, the operator can view the current operation status of the device through mobile phones, tablets, computers and other connection methods.

Internet + remote monitoring realizes big data sharing, traceable historical data, and is also convenient for maintenance and repair. All managers and health supervision departments can view real-time water quality index data through the Internet.

A main account can manage multiple networked equipment, and can supervise the water quality testing and automatic chemical dosing control systems installed all over the country without leaving home, which is convenient for the unified management of professional swimming pool contracting companies, health supervision and management departments, etc.



AF WATER CONTROL® Water analyzer and chemical dosing control system includes a transparent acrylic flowcell, which can accommodate 4 parameter water quality detection electrode probes at the same time. Through the transparent flowcell, we can visually observe the water flow. In addition to detecting temperature, PH (acid alkalinity), ORP (oxidative reduction potential), residual chlorine, turbidity and other water quality indicators, other detection parameters can also be added according to different occasions. The configuration of a wide-applicable interface can be applied to most of the dosing equipment on the market. The flexible automatic dosing setting makes the product suitable not only for various large water parks, aquariums, competition pools, but also for small schools, hotels, SPAs, fountains, waterscapes and other occasions.

AF WATER CONTROL® Water analyzer and chemical dosing control system adopts a 7-inch high-resolution LCD touch screen.




The user operation interface is intuitive and friendly, and the system setup and daily operation are simple and fast. In addition to displaying various water quality detection index data in real time on the main interface, the standard configuration also has the function of automatically recording data, and can be uploaded to the cloud to view the operation and equipment efficiency of the system in real time through the remote monitoring system on mobile phones, computers or tablets.

In addition, the system also has a built-in security protection function. Alarm and chemical addition and cutoff triggered by the flow switch of the flowcell; alarm and chemical addition and cutoff triggered by flowcell failure; alarm and drug addition and cutoff triggered when the reagent level is insufficient; monitoring of the time and time of dosing; alarm and chemical addition and cutoff triggered when the chemical dosing pump failure.

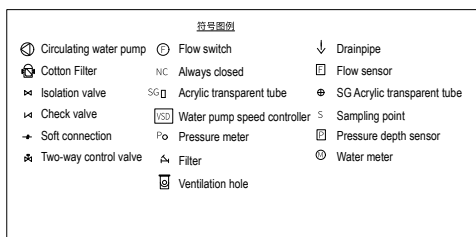
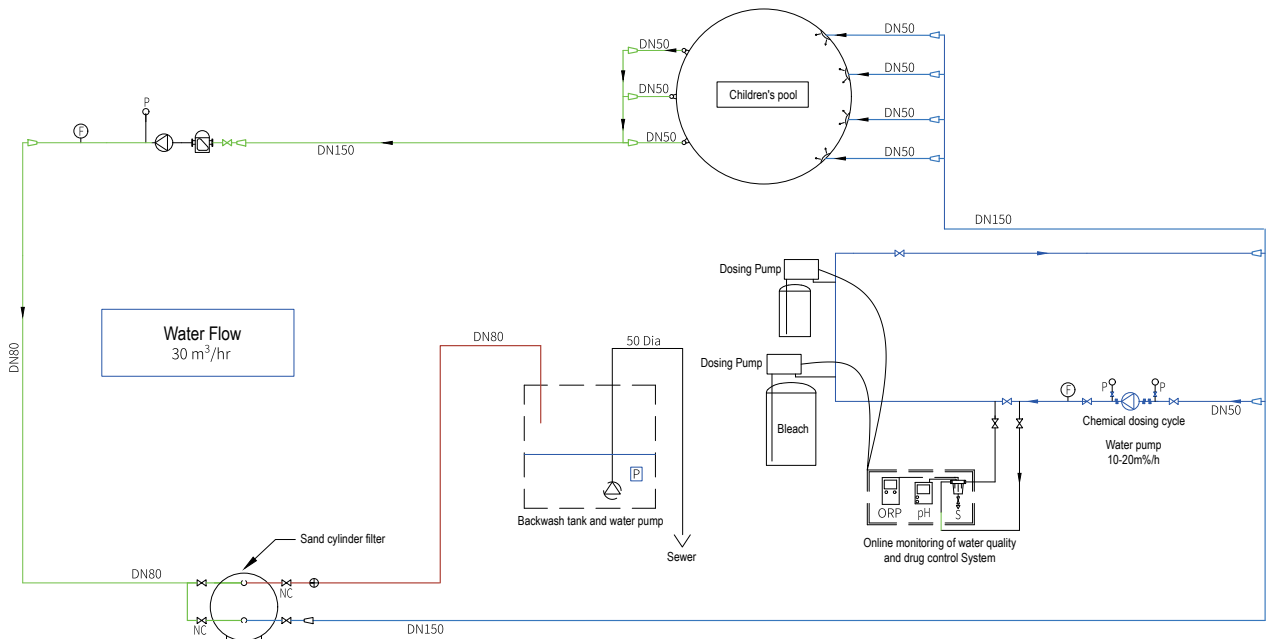
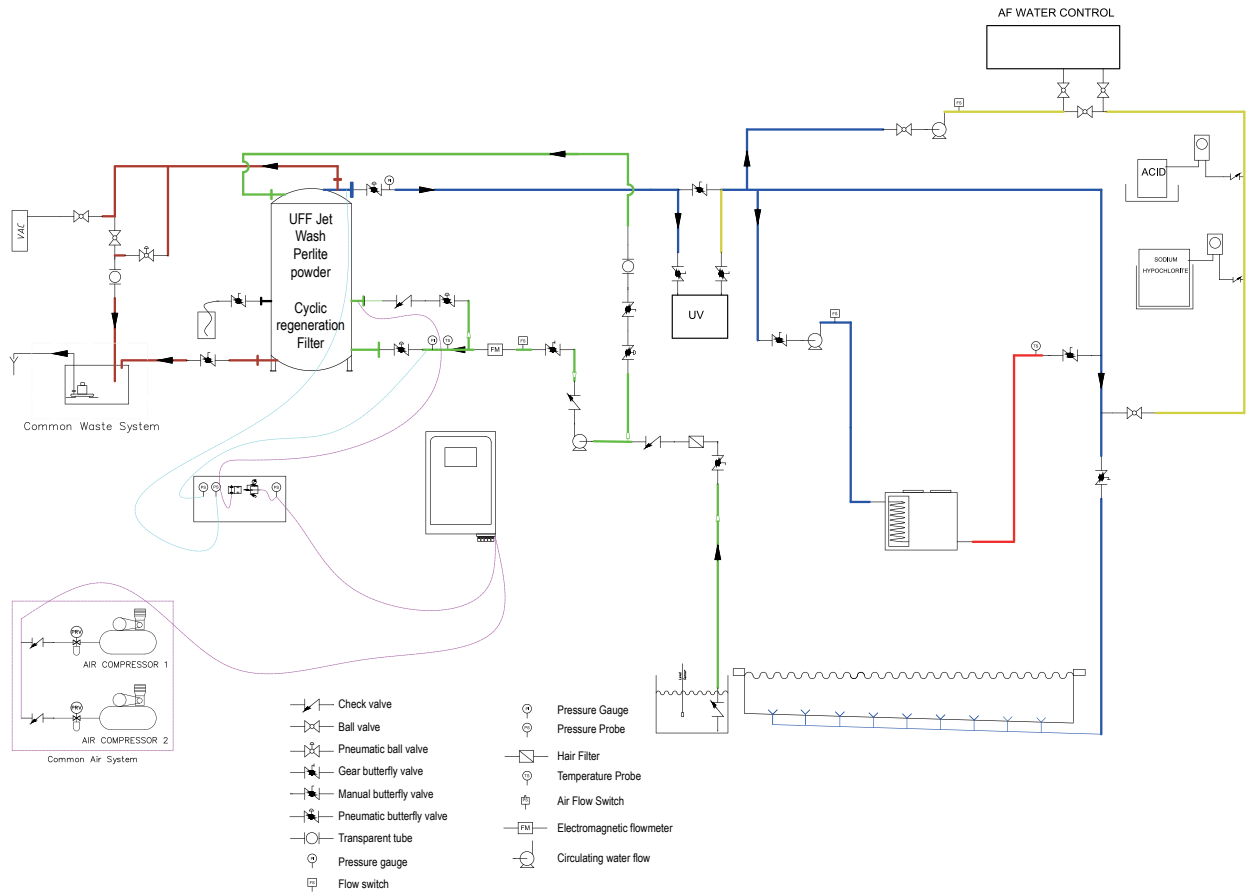
The universal plug-in sensor, pre-installed sensor cable, simple and sensitive touch interface and debugged operating system, and the integrated box design make the installation, use and daily maintenance of this system simple and fast.

AF WATER CONTROL® Water analyzer and chemical dosing control system are integrated R5485, ModbusTCP communication interface, can be used alone as water quality testing equipment in the water treatment system, can also be used together with dosing equipment and sterilization equipment, and can also be integrated into the automatic control system of the entire computer room.

Suggest installing **AF WATER CONTROL®** Water analyzer and chemical dosing control system and UFF JET WASH® regenerative medial filter together, it can not only achieve high-precision filtration, but also detect water quality in real time and carry out automatic dosing to stabilize water quality and provide super clean water, it can also greatly reduce using the amount of chemicals and play an environmental protection and energy-saving role.

Model	Product Picture	Test Parameters	Test Parameters
AFD-PO		Temperature, pH (PH) redox potential (ORP)	PH: 0-14 (± 0.5) PHORP: 0-999(± 2.5)mV
AFD-POF		Temperature, pH (PH), redox potential (ORP), residual chlorine (FAC)	PH: 0-14 (± 0.5) PHORP: 0-999(± 2.5)mV FAC: 0-10(± 0.1)ppm
AFD-POT		Temperature, pH (PH) redox potential (ORP) conductivity (TDS)	PH: 0-14 (± 0.5) PHORP: 0-999(12.5)mV TDS: 0-2000(=10)ppm
AFD-POFT		Temperature, pH (PH) redox potential (ORP) residual chlorine (FAC), turbidity	PH: 0-14 (± 0.5) PHORP: 0-999(± 2.5)mV FAC: 0-10(± 0.1)ppm Oil level: 0-1(± 0.01) NTU





AF WATER CONTROL® Pump speed controller is an energy-saving product specially designed for swimming pool circulating pumps. It is equipped with most fixed-speed pumps on the market and can control pumps in the power segment of 2.2KW and above.

By changing the motor frequency to change the running speed of the motor, different cycle filtration requirements can be realized in different time periods, so as to achieve the effect of energy saving.



AF WATER CONTROL® Pump speed controller can protect the circulation pump. When the inlet or outlet water pressure is not enough or the water flow is insufficient, it will automatically cut off the power supply to prevent the circulation pump from idling, protect the pump, and also extend the working life of the pump.


AF WATER CONTROL® Pump speed controller can correct the power factor of the motor and make the motor perform the highest performance.

AF WATER CONTROL® Pump speed controller can reduce the motor frequency to reach the required flow range according to the actual head loss, reduce the noise generated by the operation of the pump, and extend the service life of the pump.

AF WATER CONTROL® Pump speed controller has an independent circuit break protection function, which can cut off the power supply and better protect the motor when the line fails.

AF WATER CONTROL® Pump speed controller is with RS485 signal output, can directly control the switch of the motor with the AF WATER CONTROL® Regenerative Media Filter Controller, through the AF WATER CONTROL® Regenerative Media Filter Controller's touch screen interface to adjust the circulation pump speed, and you can also read the real-time operation status of the motor on the screen, including real-time voltage, current, frequency, water pump speed, etc. There is no need to directly touch the motor to avoid improper operation endangering personal safety.

AF WATER CONTROL® PUMP SPEED CONTROLLER SELECT TABLE

Model	Product Picture	Parameter
AFI-2.2		Adapt to 2.2kW three-phase motor, 50/60Hz, 380V, with leakage protection switch, RS485 signal
AFI-4		Adapt to 4kW three-phase motor, 50/60Hz, 380V, with leakage protection switch, RS485 signal
AFI-5.5		Adapt to 5kW three-phase motor, 50/60Hz, 380V, with leakage protection switch, RS485 signal
AFI-7.5		Adapt to 7.5kW three-phase motor, 50/60Hz, 380V, with leakage protection switch, RS485 signal
AFI-11		Adapt to 11kW three-phase motor, 50/60Hz, 380V, with leakage protection switch, RS485 signal
AFI-15		Adapt to 15kW three-phase motor, 50/60Hz, 380V, with leakage protection switch, RS485 signal
AFI-18.5		Suitable to 18kW three-phase motor, 50/60Hz, 380V, with leakage protection switch, RS485 signal
AFI-22		Adapted to 22kW three-phase motor, 50/60Hz, 380V, with leakage protection switch, RS485 signal
AFI-30		Adapt to 30kW three-phase motor, 50/60Hz, 380V, with leakage protection switch, RS485 signal



Appreciation of wonderful cases

Some Installation Cases

Sr.	Project Name	Country / Region	Use Model	Qty	Completion Date	Remarks
1	Zhengzhou Meisheng Sheraton Hotel	China	T Series	1	30/12/2020	Indoor swimming pool/sand tank upgrade
2	Jiangmen Flower Sea World	China	T Series	3	30/04/2021	Wave Pool / New
3	Zhengzhou Jianye Le Meridien Hotel	China	M Series	1	31/05/2021	Indoor swimming pool/sand cylinder upgrade project
4	Chongqing Shizishan Sports Park	China	M Series	2	26/10/2021	Indoor swimming pool/sand cylinder upgrade project
5	Chongqing University	China	T Series	3	15/01/2022	Standard swimming pool, training pool/new
			M Series	1		
6	Villa in Vuitton Town	China	S Series	1	15/09/2022	Villa/New
7	Zhengzhou 16th Senior High School	China	T Series	2	30/09/2022	Standard swimming pool/new
8	Beijing Oriental Charme Hotel	China	S Series	1	05/10/2022	Outdoor pool/new
9	Qingdao Chengyang District Asian Games Swimming Center	China	S Series	2	24/10/2022	Standard swimming pool, training pool/new
			T Series	2		
10	Hong Kong Lai Chi Kok Park Swimming Pool	China	T Series	3	30/04/2023	Standard swimming pool, training pool/sand cylinder upgrade
11	Changsha Window of the World	China	T Series	2	30/05/2023	Standard swimming pool/new
12	Guangzhou Qingshuihao Primary School	China	M Series	1	30/08/2023	Training pool/renovation upgrade
13	Shanghai Gymnasium	China	T Series	1	30/09/2023	Standard swimming pool/renovation and upgrade
14	Long'an Water World Park	China	T Series	3	30/09/2023	Wave Pool/New
15	Guangzhou Hailong Swimming Training Center	China	T Series	1	31/10/2023	Training pool/renovation upgrade
16	Guangzhou Yuelong Sports Development	China	T Series	3	31/12/2023	Standard swimming pool, training pool/new

Appreciation of wonderful cases



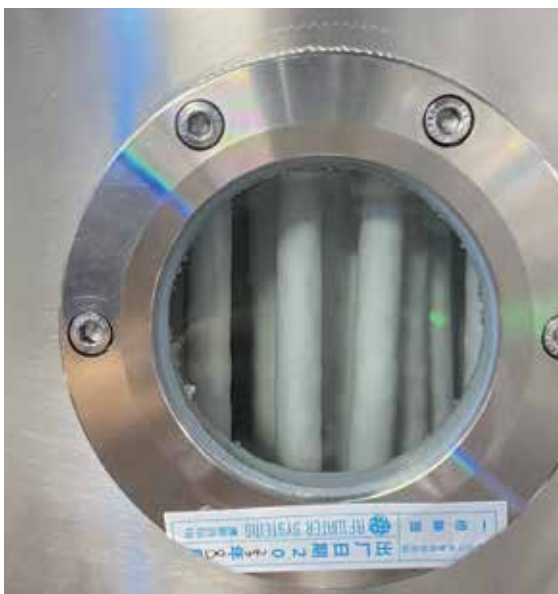
Show Cases

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AF WATER
SYSTEMS
澳熙水系统

EXPERIENCE MAKES DIFFERENCE



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