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Water and the environment, Nature, for people



TOTAL ENGINEERING SOLUTION PARTNER

ESP Co. Ltd. 

“ Happy world shared by water with ESP Co. Ltd. “
We will be the best company in the water industry

ESP Co., Ltd.

Since our establishment in 1992, we have always been striving for technological innovation with the philosophy of providing safe drinking water to citizens and providing value for improved water and happier lives to future citizens as a leader in the field of water treatment machinery and measurement control. To this end, ESP provides integrated water treatment solutions and technology services based on creative and innovative AI technologies in response to the era of advanced and eco-friendly water management services. Moving forward, ESP will become the best company in the water industry by securing excellent technology through technological innovation, not being satisfied with the present, basing efforts on manufacturing the best water treatment machinery, and implementing measurement control systems.

CEO Youngim Kim

main product

Aggregation
Agitator

Dissolved Air
Floatation
Equipment

Sludge
Collector

Chemical
Injector

Actuator



Company History

- 2002. 01 Incorporation of ESP Co., Ltd.
- 2002. 10 Registered as a software business
- 2011. 04 Acquired license for construction business specialized in information and communication
- 2012. 02 Obtained a licence "Clean / Sewage Equipment Engineering Works"
- 2013. 06 Obtained ISO9001 : 2008
- 2015. 10 Moved New Factory in "Pocheon City".
- 2018. 11 Acquisition of Korea Water Resources Corporation's Technical Performance Verification of Water Purification and Sewage Pressure Injury Separation System (DAF)
- 2019. 12 Korea Water Resources Corporation (Performance Sharing System Spread Promotion Headquarters) Registration of Performance Sharing System Obtain a confirmation of a private contract for a hydrofoil coagulator
- 2020. 11 Korea Water Resources Corporation won the best prize in the idea section of the Water Industry Innovation Startup Competition
- 2021. 02 Acquisition of KC Sanitary Safety Standards Certificate Chlorine Injector
- 2021. 09 Established the Central Branch of ESP Co., Ltd.
(Jiphyeon Jungang 7-ro 6 A-dong 1106, Sejong-si)
- 2021. 12 Registration of designation of excellent products, etc.: Water treatment facilities (aggregator, paddle type)
- 2022. 02 Acquisition of certificate for designation of innovative products: Hydrofoil aggregator with curved impeller
- 2022. 12 Registration of designation for excellent products, etc.: Water treatment facilities – sludge collector (underwater truck towing type)
- 2023.01 Acquisition of K-water Registration Technology Confirmation: Dissolved Air Injury Separation Unit (DAF)
- 2023.03 Obtain ISO 45001 Health and Safety Management System Certificate
- 2023.07 Get ESG Small Business Certification

Innovative Product Aggregation Stirrer

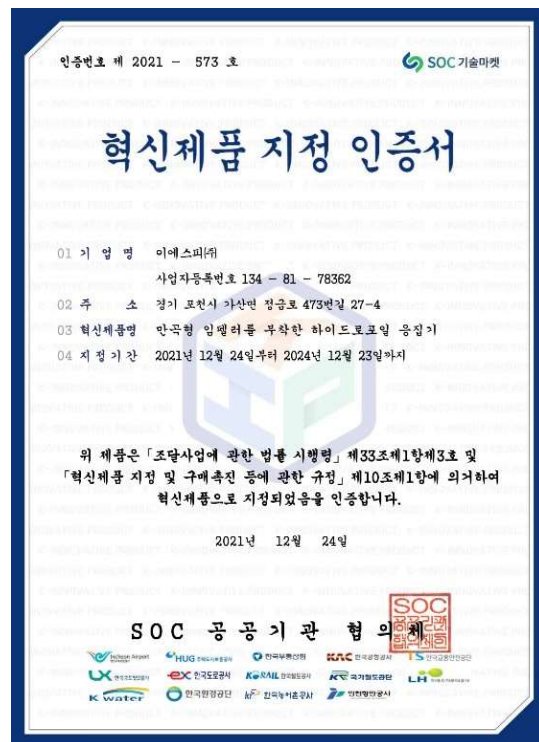
Innovation Product Designation Certificate

(Certification No. 2021-573)

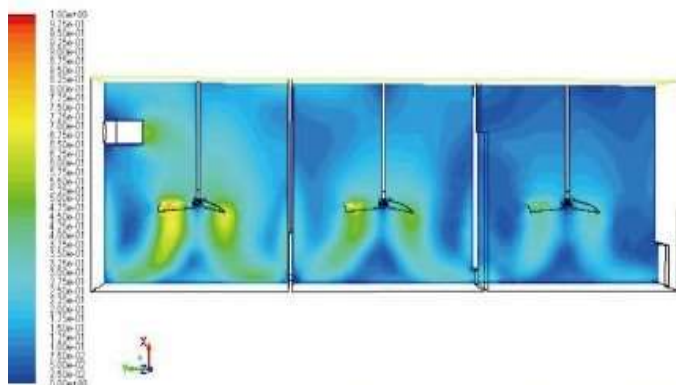
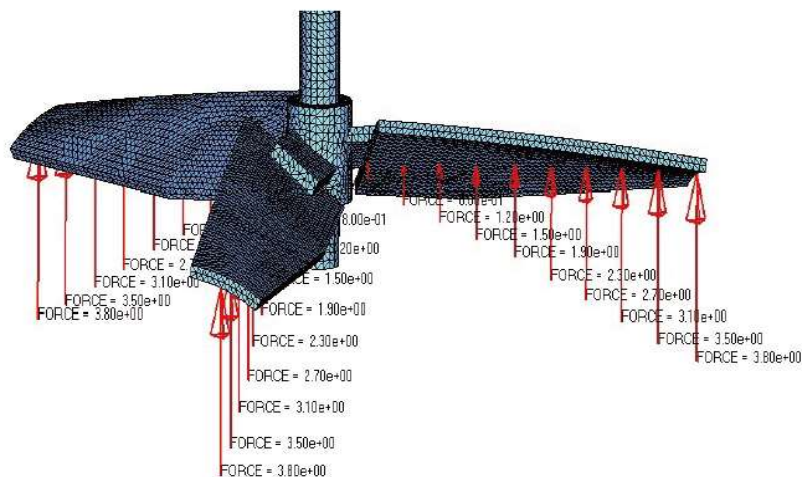


Features

- Helical gear type reducer (drywell structure)
- Triple seal structure oil leakage source shut off
- Framing Shrink Disc Binding and Leak Detection Device Configuration



An agglutinating stirrer(Hydrofoil) – a curved impeller



- The impeller structure is curved and has Low fluid resistance underwater and forms maximum flocks
- Optimal efficiency operation by adjusting the impeller angle
- Increases coagulation/stirring efficiency and inhibits dead zone generation
- High pumping force due to uniform downward flow
- Greater power savings

ENERGY-SAVING AGGREGATION AGITATOR

- BLDC MOTOR

Korea Water Resources Corporation Completed Quality Improvement Performance Sharing System

(Improving the quality of agglutination stirrers by applying BLDC motor and angle adjustable impeller)



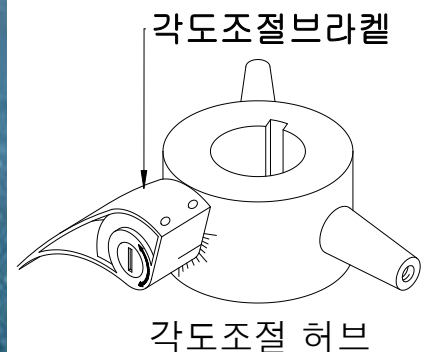
Features

- High torque and high power efficiency
- Energy-saving type with more than 90% efficiency of BLDC motor
- Intelligent self-driving mechanical protection function
- **Motor and controller disconnected (over 100M)**
- **Distance controllable (world's first development)**
- No more than 50 dB of noise

Registration of patent (제 10-2477131호)

(A compensatory power supply control device for a brushless motor with a long-distance input power line)

- Water storage tank stirrer
- H,Waste treatment plant agitator
 - Reaction Tank, predam, anaerobic group
- **Reduce power costs by more than 50%**
- AUTO-SELF CONTROL
 - AUTO alternating driving
 - AUTO RPM controlled operation



High performance AERO DYNAMICS stirring

Agglomerating stirrersludge collector

Excellent product designation : Water treatment facility-sludge collector (water truck towing type)

Excellent product designation : Water treatment facility (aggregator, paddle type)



Vertical paddle aggregator

- A device that forms a flock of raw water introduced through a chemical injection device and a mixing device in a raw water aggregation process
- Paddle material: PE

Horizontal paddle aggregator

- A device that forms a flock of raw water introduced through a chemical injection device and a mixing device in a raw water aggregation process
- Paddle material: PE

submersible bogie sludge collector

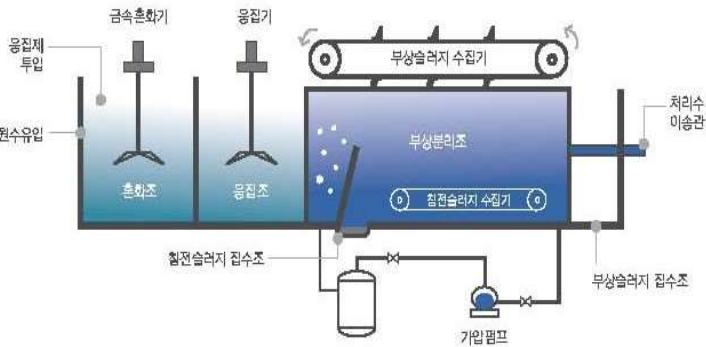
- A device for collecting sludge in a sludge hopper by installing a screpa on an underwater truck in a rectangular sediment

DAF(Dissolved Air Flotation) Equipment

DAF(Dissolved Air Flotation)

Features

- When air is dissolved in water at high pressure and injected into raw water, it decompresses and supersaturated air becomes microbubbles
- It is attached to floating substances in water, rises to the check surface, and solid-liquid separation removes floating substances
- Very short processing time due to high sleep load
- High economic efficiency due to compact installation area
- Effective in removing low specific gravity particles and algae that shorten filtration duration
- Minimize consumption of treated water by removing only sludge



Registration of patent

▲ COMPACT SCOM REMOVAL DEVICE

- Patent technology of floating separation device water treatment device
- NO 10-1964828/ NO 10-1964830/ NO 10-1964832
- NO 10-1999743 Pressurized levitation quiet scum removal device
- Installation of sludge collector to remove sediment sludge from the lower part of the floating tank
- Venturi neck spray nozzle with pressurized water improves ultra-fine bubble diffusivity
- Baffle Installation for Maximum Time of Stay in Pressurized Water

Korea Water Resources Corporation Technical Performance Verification NO 2019-03

DISSOLVED WATER SEPARATION DEVICE (DAF) FOR TREATMENT OF REVERSE TYPE WASTE WATER IN PRESSURE-TYPE

Korea Water Resources Corporation Registration of New Technology (Patent Construction Method)

Dissolved Air Injury Separation Unit (DAF) (patent NO 10-1964832)



Chemical Injection Equipment

Liquid Chemical Injector

Government Procurement MAS Association Registration

Hygiene and Safety Standards (KC) Certificate

(KCW-2021-0062)

Features

- Chemical injector that automatically and precisely injects liquid chemicals, such as flocculant, caustic soda, polymer, sulfuric acid, and hypochlorite, etc.
- Consists of a chemical flow meter + quantitative tube pump (or control valve)
- Detecting float leaks to detect drug leaks
- Flow range of 1:25,00 for the accuracy of liquid chemicals
- Made of non-metallic SKID to prevent corrosion and decolorization
- Presenting the future model of the chemical injector with an integrated injector (SKID+tank+control system)



Powder Chemical Injector

Features

- Activated carbon injection device to remove odor from raw water
- Slacked lime injector for pH adjustment of raw water
- Consists of storage hopper + screw feeder + automatic solution tank
- Screw feeder with 0.5% precision
- Precision control using a hose pump and a control valve
- Automatic batching system
- Automatic concentration control function
- patent NO 10-2261022
Activated carbon grinding unit and activated carbon supply device for water treatment equipped with it
- patent NO 10-2264664
Activated carbon supply for water treatment with a high-pressure collision mixer



Pump Diffuser Mixer

Features

- Mixed water and chemicals are propelled into the deflector plate, using the injection pressure, to be mixed instantly
- Consists of instant blender main body, mixed water pump, strainer, differential pressure meter, and flow meter
- Instantaneous quick mixing (within 1 second)
- Operated with high mixing strength (value G) and the mixing strength is adjustable
- Applicable to high turbidity raw water





Actuator * Please refer to the attached catalog

“ The best innovator in the water industry ESP Co. Ltd “

**We will become a company that rewards customers through energy
Efficiency innovation and cost reduction**



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