



FIBER DISCFILTER

● advanced technology of
Filtration

Suwon 1,2 STP(520,000m³/day) YDFS series

FIBER DISCFILTER

Gravity filtration type of Discfilter with fiber media
The high efficiency removal of BOD, COD, SS and T-P(with chemical)
by the depth and gravity filtration.
Performance certified by Korean Small Medium Business Administration(EPC)

YDF series



>> Seongnam-si, Seongnam STP(460,000m³/d)



>> Daegu-si, Seobu STP(455,000m³/d)



>> Suwon-si, Suwon 1,2STP(520,000m³/d)



>> Tongxian STP, China(100,000m³/d)

YDFS series

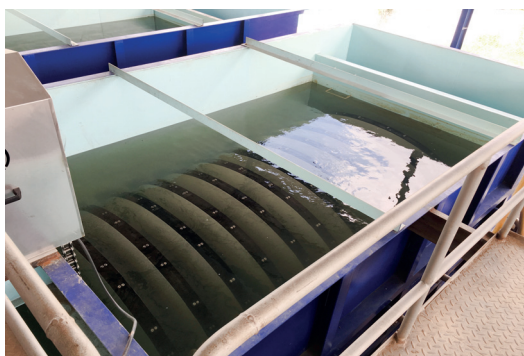


>> Xuzhou Project, China(24,000m³/d)



>> Babelan Purification plant, Indonesia(38,880 m³/d)

Application 1 : Drinking water(Purification plant)



YDFS-2312-2F x 5units
Babelan Purification plant, Indonesia (38,880m³/d)



The first influent of Purification plant (River water) Raw water of Fiber Discfilter (Supernatant from Lamella) Treated water (Fiber Discfilter)

>> **Process of Babelan Purification plant, Indonesia(38,880 m³/d)**



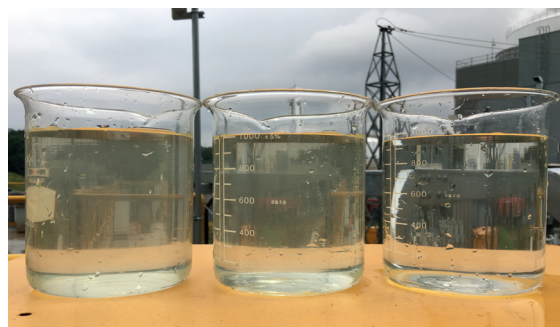
>> **Babelan Purification plant - Commissioning result without chemical**

Item	Inlet Raw water of Fiber Discfilter	Outlet Treated water by Fiber Discfilter
Turbidity	10.7NTU	1.84NTU

Application 2 : River water treatment for Process water



YDF-2308-1F x 1unit (3,120m³/d) PRAXAIR Korea



Raw water Flocculated water Treated water (Fiber Discfilter)

>> **Process of PRAXAIR Korea(3,120m³/d)**



>> **PRAXAIR Korea - Operating data**

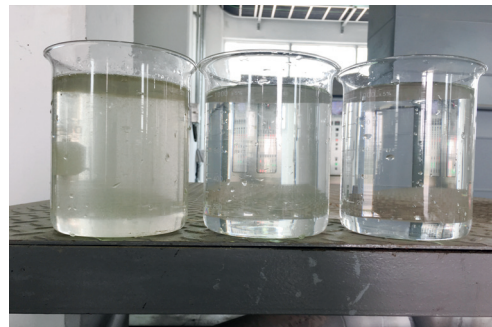
Item	Inlet Raw water of Fiber Discfilter	Outlet Treated water by Fiber Discfilter
Turbidity	4~20NTU	0.3~1.0NTU
SS	4~30mg/L	Below 2.0mg/L

Application 3 : River water treatment for Lake and Streamlet

>> Process of Han River water treatment (6,000m³/d)



YDFS-2306-1F x 2units
Han River water treatment(6,000m³/d)



Raw water (Storage tank) Treated water (Pre-treatment equipment) Treated water (Fiber Discfilter)

Application 4 : River water treatment for Process water

>> Process of Seoul Botanic Park (2,500m³/d)



Han River (Water intake source/Raw water)



YDF-2304-1F x 2units
Seoul Botanic Park(Magok Central Park) 2,500m³/d

Application 5 : River water treatment for Process water

>> Process of SinGok pumping-station



Pilot test (River/SinGok Pumping-station)



Raw water (River water) Flocculated water Treated water (Fiber Discfilter)

FIBER DISCFILTER
YDF Series

YDFS - 700 Series

YDFS - 1000 Series

YDFS - 2100 Series

YDFS - 2300 Series

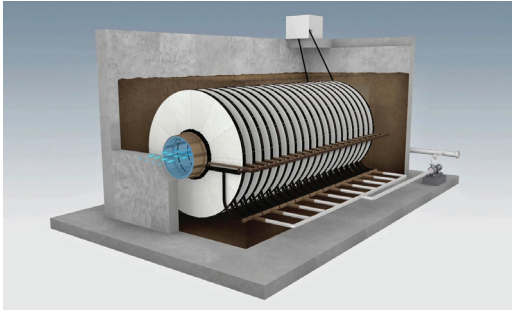
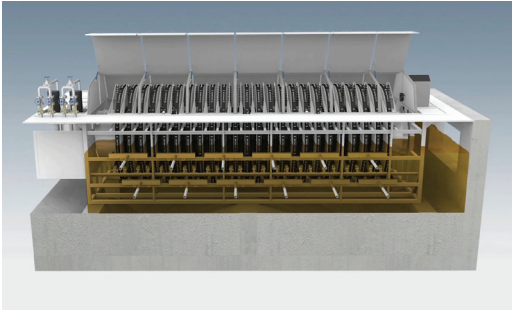
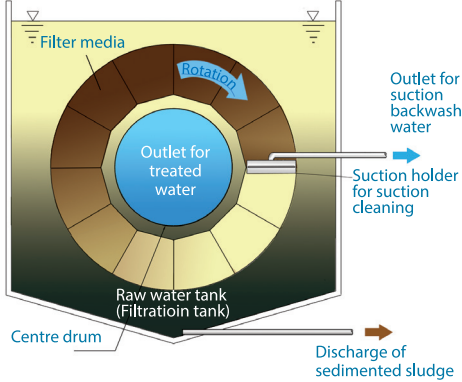
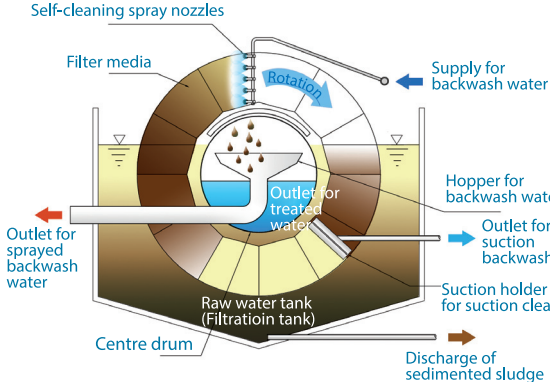
YDF - 2300 Series

YDFN - 2300 Series

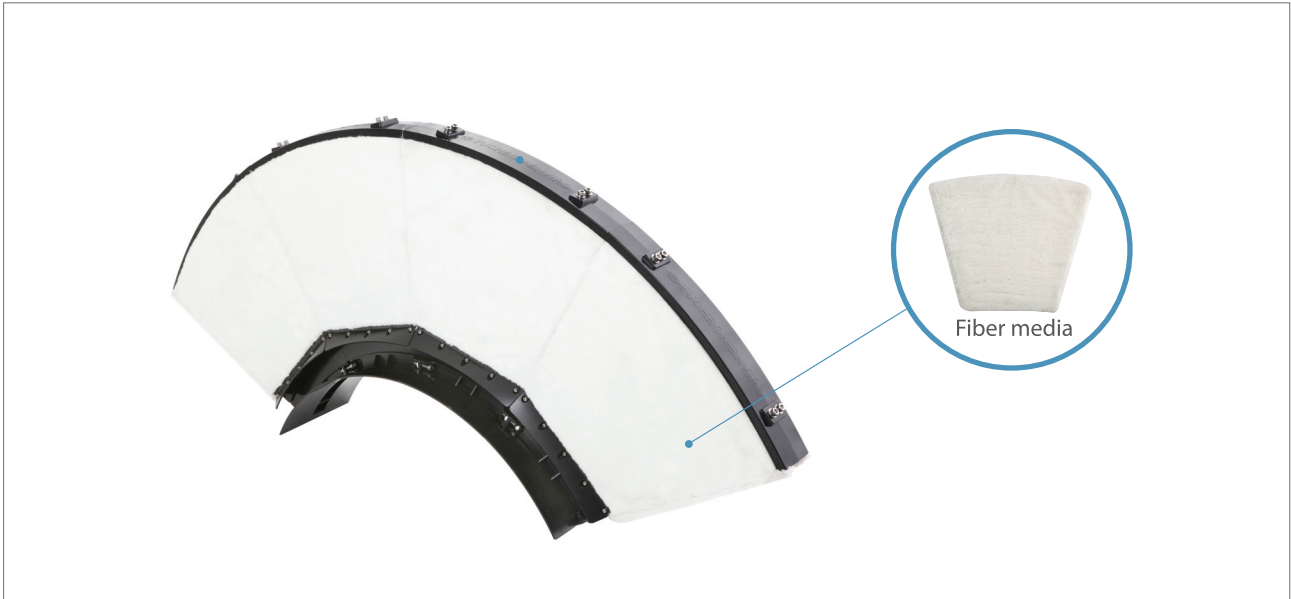
YDFS - 3000 Series

The flexible and suitable design for each specific customer based on the capacity, water quality and contaminated load is possible thanks to the wide range of models by the specification of Fiber media, the diameter and quantity of Disc.

Type of Fiber Discfilter

	YDFS series 100% submerged	YDF series 55% submerged
Appearance		
Process diagram		
Disc diameter	Ø0.7m, Ø1m, Ø2.1m, Ø2.3m, Ø3.0m	Ø2.3m
Submerged area	100%	55%
Chemical dosing	Operation without chemical normally. If it is need, chemical dosing is available.	Available(PAC, ALUM, Polymer) Using a polymer leads to high quality treated water. The cost for PAC, Alum can be decreased by using of polymer.
Backwash method	Perfect backwash with specialized cleaning device for suction Automatic backwash by level sensor(head loss) and timer	Perfect backwash with specialized cleaning device for suction and spray Automatic backwash by level sensor(head loss) and timer

Easy maintenance of Fiber media



Replacement method of Fiber media



Fiber Discfilter is operated for filtration without the stop during the replacement of Fiber media.

PILOT TEST MACHINE of Fiber Discfilter

We can test at the site by customer's request.



Merits of Fiber Discfilter

- 1 The stable removal efficiency of BOD, SS and T-P etc. by the sieve filtration and depth filtration effect
- 2 The flexible and suitable design for each specific customer based on the capacity, water quality and contaminated load is possible thanks to the wide range of models by the specification of Fiber media, the diameter and quantity of Disc
- 3 Very easy maintenance for replacement and check for Fiber media
- 4 The stable and continuous operation by the perfect cleaning of Fiber media with the specialized cleaning device and automatic self-cleaning nozzle
- 5 Fiber Discfilter does not need the spare unit due to the continuous filtration process and the very small footprint is need only due to the compact design.
- 6 Very small Head loss(50-250mmH) of water level due to Gravity(natural flow) filtration type
- 7 Very little backwash water(1-3%)



» YDFS-1000 series

Main applications of Fiber Discfilter

- 1 The tertiary treatment for the removal of BOD and SS from sewage water
- 2 The tertiary treatment for the removal of SS from sewage, industrial wastewater and reuse water etc.
- 3 The removal of SS from Purification plant, Lake, Pond and the algae from Aquaculture
- 4 Industrial purpose water, Cooling water, Agriculture purpose water, Cooling water for Power plant and Steel manufacturing plant etc.
- 5 Pre-treatment for the advanced treatment(Activated carbon, Ion tower, Ozon, UV) and R/O, N/F
- 6 Filtration of the discharge water from Purification plant.
- 7 CSO application
- 8 The removal of T-P by combination process with chemical dosing and mixing equipment + Sedimentation + Fiber Discfilter
- 9 The treatment for the removal of T-P by combination process with chemical dosing equipment after the final sedimentation tank

Reference list

YDFS series

318MLD DJB (318,000m³/day), India
 Suwon 2STP(300,000m³/day), Suwon-si
 Suwon 1STP(220,000m³/day), Suwon-si
 200MLD Nagpur (200,000m³/day), India
 Hyundai Steel(135,820m³/day), Dangjin-si
 Tongxian STP(100,000m³/day), China
 Pirshaghi STP(60,000m³/day), Azerbaijan
 Seosan STP(58,000m³/day), Seosan-si
 Jiyuan STP(40,000m³/day), China
 35MLD Agaram (35,000m³/day), India
 Geumchon STP(27,000m³/day), Paju-si
 Xuzhou STP(24,000m³/day), China
 Lucknow STP(19,000m³/day), India
 Babelan STP(17,280m³/day), Bekasi, Indonesia
 Samsung Electronic SEVT Component 2WWT(6,000m³/day), Vietnam
 SEVT Yen Binh Expansion WWT(2,300m³/day), Vietnam
 and many others

YDF series

Nanji STP(545,400m³/day), Seoul-si
 Seongnam STP(460,000m³/day), Seongnam-si
 Seobu STP(455,000m³/day), Daegu-si
 Seonam STP(360,300m³/day), Seoul-si
 Joongrang STP(260,000m³/day), Seoul-si
 Bakdal STP(250,000m³/day), Anyang-si
 Uijeongbu STP(200,000m³/day), Uijeongbu-si
 Wonju STP(156,000m³/day), Wonju-si
 Jingeon CSO(120,000m³/day), Namyangju-si
 Wonneung/Byukje STP(110,000m³/day), Goyang-si
 Shincheon STP(70,000m³/day), Yangju-si
 Jecheon STP(70,000m³/day), Jecheon-si
 Tongbok STP(45,000m³/day), Pyeongtaek-si
 Kyungan STP(40,000m³/day), Kyunggi-do
 Youngsan River CSO(24,000m³/day), Gwangju-si
 and many others



YUCHEON ENVIRO

123B-1L, 454, Aenggogae-ro,
Namdong-gu, Incheon, Korea

TEL +82-32-812-5077 **FAX** +82-32-812-5075

Homepage www.yucheon.co.kr

E-mail master@yucheon.co.kr

2019.06.10