

World Proven, Solution Driven--Hinada



Water Technology and Solutions

Designation /Operation/Technical Manual



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Hinada Water Treatment Tech Co.,LTD

Hinada Water Treatment Tech Co., Ltd. is one of leading MBR membrane | Wastewater Treatment Equipment | Clean Water Filtration System manufacturers in China, specializing in wastewater treatment solution provider and equipments supplying in Guangzhou since founded in 2012.

And we provide the truly integrated solution to water and wastewater project, from designation, supplying, installation support and commissioning to training.

2012
Since

72 Countries
Service

1300+
Clients

Solution
Provider

Water is life
Confronting water scarcity
Hinada always care about our water and Environment
Devoting all our efforts to offer a suitable satisfying solution / Products to our clients.



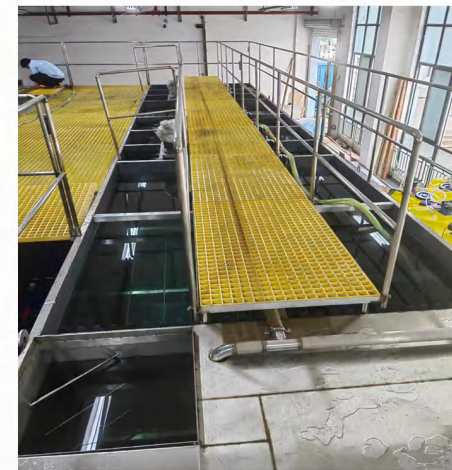
Certificates



ISO9001 Certificate

TUV Test Report

CE Certificate



Lab Test and Commissioning in factory



Flow Rate Test



Burst Pressure Test



Raw Material Inspection



Implosion Pressure Test

Our Advantages

Complex Solutions

Widely Supply to different market and various water application



Industry Experience

More than 15 years water and Wastewater industry experience in engineering and projects



Brilliant Team

Hinada offer professional water solution designation, sophisticated installation, good training and efficient after-sales service according customer's requirement



Creative & Professional

Top quality product and service satisfying every clients



100% Result Guarantee

3 years warranty and life time technical support

Project site installation /Training



CONTENT

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Submerged MBR Membrane

Biological Treatment + MBR

MLSS Around 6000--8000mg/L

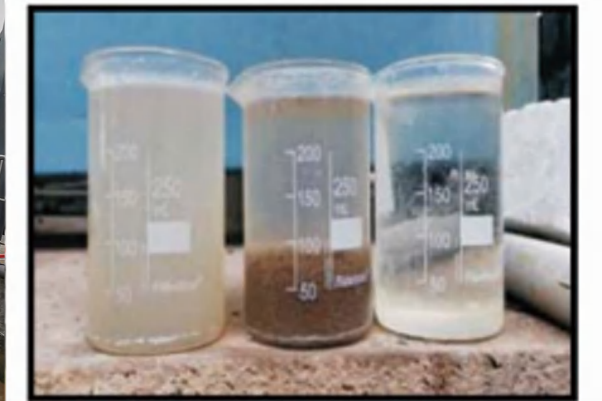
High Quality Effluent

High efficiency reductions contaminants



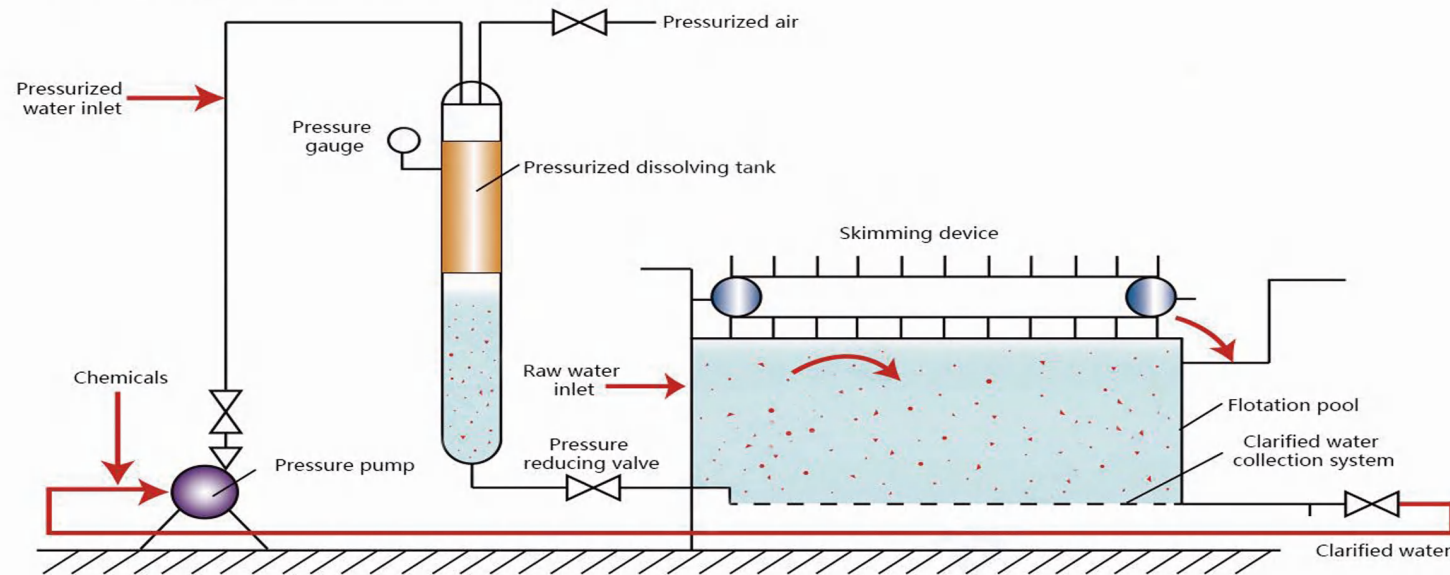
Type	NM-RMBR-1010	NM-RMBR-1520
Membrane area per element (m ²)	10 m ²	20 m ²
Nominal pore size (μm)	0.06μm Micron (Average)	0.06μm Micron (Average)
Material	PVDF, PET non-woven fabric and ABS resin	PVDF, PET non-woven fabric and ABS resin
Membrane Element dimension	Height: 1100mm	Height: 1535mm
	Wide: 571mm	Wide: 571mm
	Thickness: 45mm	Thickness: 45mm
Filtration Method	Suction /Outside-in	Suction /Outside-in
Hollow fibers I/O diameter	1.0 /2.0mm	1.0 /2.0 mm
Design flow rate	10—25 L/m ² .H (Sewage design 15---25 L/m ² .H)	10—25 L/m ² .H (Sewage design 15---25 L/m ² .H)
	Industry wastewater: 10---20 L/m ² .H	Industry wastewater: 10---20 L/m ² .H
	Landfill leachate: 5---8 L/m ² .H	Landfill leachate: 5---8 L/m ² .H
Air diffuser	Fine bubble, tube type, EPDM rubber	Fine bubble, tube type, EPDM rubber
Recommendation	Ideal for: Smaller capacity plants (<200 m ³ /d) or Containerized package plants, the MBR Tank Height around 2m	Ideal for: Medium and large capacity plants (>200 m ³ /d) Municipal & industrial wastewater, MBR Tank above 2.5m at least

MBR in Industrial WWTP



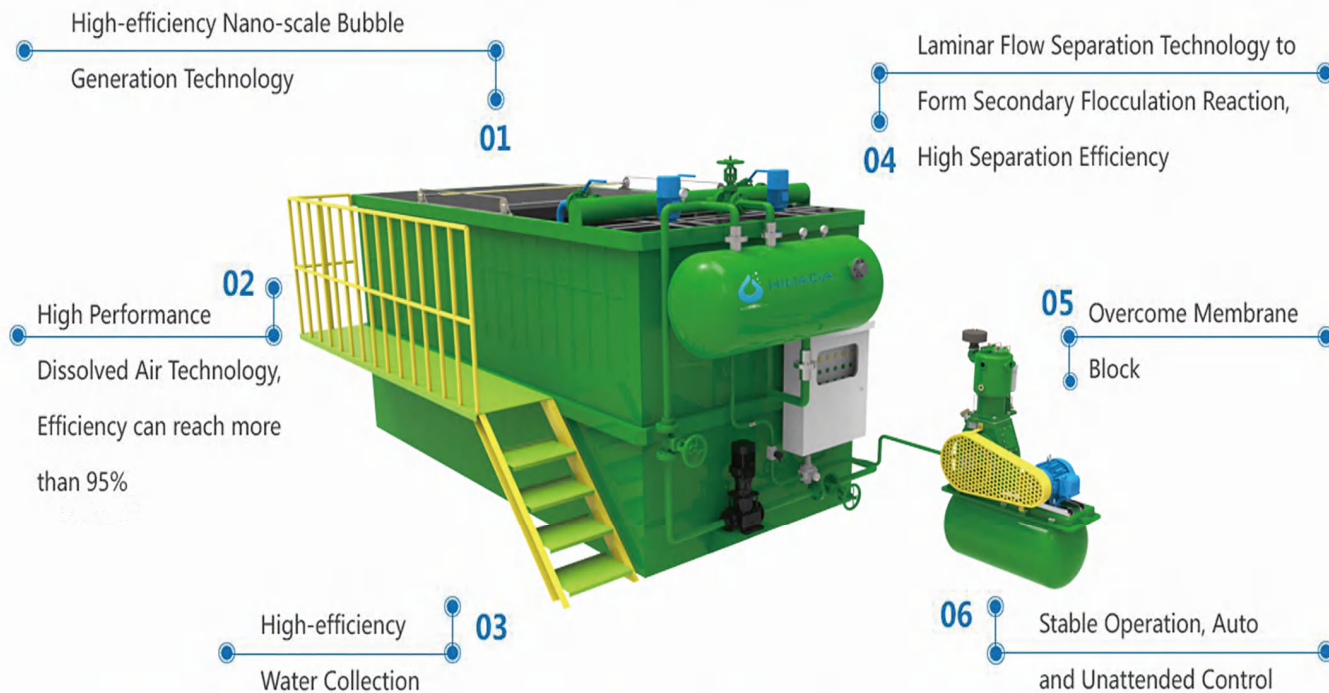
Dissolved Air Flotation Machine for Industry Wastewater

The DAF System is composed of high efficient air dissolving system and designed according to the new-generation of solid-liquid separation technology, which make very efficient in removing organic and inorganic suspended matters, flocs, phosphorus (p), oil and grease from industrial wastewater such as oil refining, chemical industry, brewing, vegetable oil production and refining, slaughtering, electroplating, printing and dyeing.



DAF System Advantages

- 1) Oil and Grease: remove 70—90% of input
- 2) Suspended matter: remove 50—80% / COD: low down 40%
- 3) The DAF system utilises nano-scale air bubbles, also known as White Water, The floated solids are then removed by a simple but effective scraper mechanism.
- 4) DAF System for emulsified oily and color removed need working with chemical



DAF System Specification

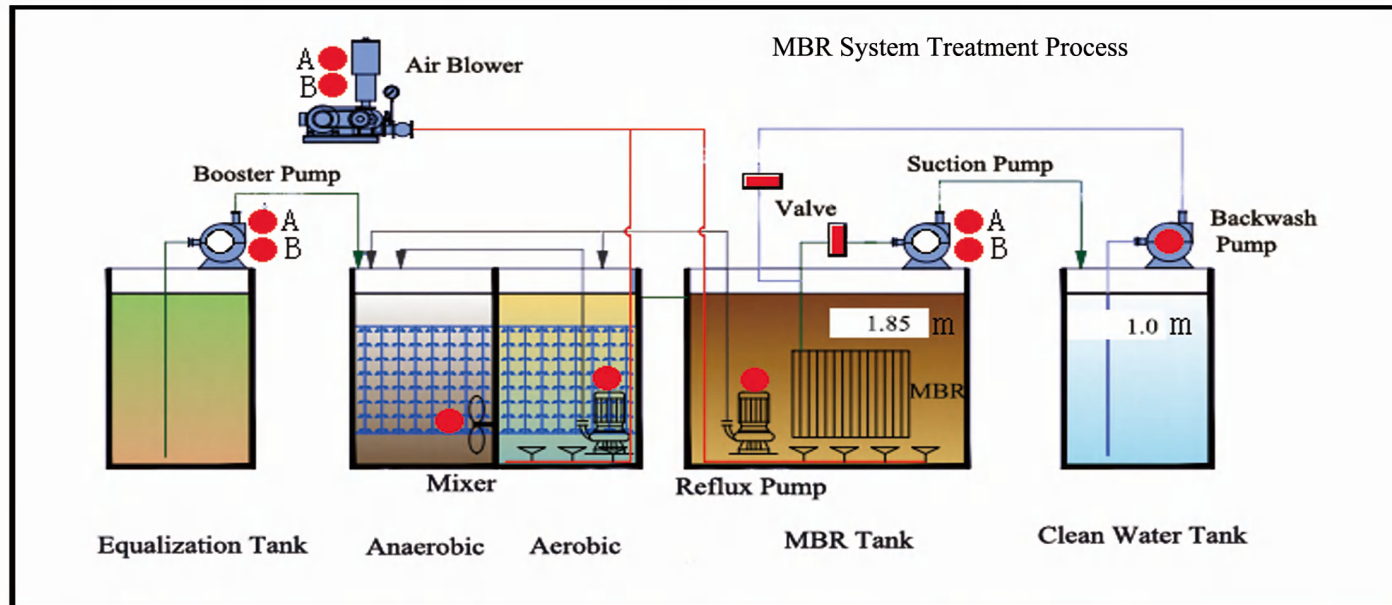
Model	Capacity (m ³ /h)	Dimension L*W*H (mm)	Dissolved Air Tank ΦD*H (mm)	Dissolved Air High Pressure Pump	Agitator (KW)	Slag Scraper	Unloaded Weight	Running Weight
DAF-5	5	3000*1510*2000	400*800	0.55KW	2*0.55	0.37KW	2950	14500
DAF-10	10	5000*1510*2000	400*800	1.1KW	2*0.55	0.37KW	3700	19500
DAF-15	15	6000*1510*2000	500*1000	1.5KW	2*0.55	0.37KW	4500	26300
DAF-20	20	6000*2000*2000	500*1000	1.5KW	2*0.75	0.37KW	5100	31600
DAF-30	30	7000*2000*2500	500*1400	2.2KW	2*0.75	0.75Kw	5800	38300
DAF-40	40	8000*2000*2500	500*1400	2.2KW	2*0.75	0.75Kw	6300	41350
DAF-50	50	9000*2000*2500	600*1500	4.0KW	2*1.1	0.75Kw	7500	51180
DAF-60	60	10000*2000*2500	600*1500	5.5KW	2*1.1	0.75Kw	8600	60500
DAF-70	70	11000*2000*2500	800*1500	5.5KW	2*1.1	1.1KW	9600	72000
DAF-75	75	11900*2000*2500	800*1500	7.5KW	2*1.5	1.1KW	10600	83000



MBR System Application:

For resorts, hotels, hospital, Camps or shipping mall or remote locations without municipal pipeline and WWTP that capacity less than 200m³/day.

MBR Effluent can be used for flushing, gardening, cooling tower makeup or safe discharge



MBR System Specification

S.N	Capacity	Equipment Dimension	Running Power	Total Power	Space Required
1	5m ³ /Day	3.0*1.0*1.5m (L*W*H)	2.5KW	3.5KW	7.2m ² (L=4.0m, W=1.8m)
2	10m ³ /Day	3.5*1.5*1.5m (L*W*H)	2.5KW	3.5KW	11.2m ² (L=4.5m, W=2.5m)
3	15m ³ /Day	4.5*1.5*2.0m (L*W*H)	3.0KW	4.0KW	15m ² (L=6.0m, W=2.5m)
4	20m ³ /Day	5.0*1.5*2.0m (L*W*H)	3.0KW	4.0KW	17.5m ² (L=7.0m, W=2.5m)
5	30m ³ /Day	5.8*1.5*2.2m (L*W*H)	3.5KW	5.0KW	20.0m ² (L=8.0m, W=2.5m)
6	40m ³ /Day	5.8*2.2*2.2m (L*W*H)	4.0KW	6.0KW	24.0m ² (L=8.0m, W=3.0m)
7	50m ³ /Day	7.0*2.2*2.5m (L*W*H)	4.5KW	7.0KW	27.0m ² (L=9.0m, W=3.0m)
8	60m ³ /Day	8.0*2.2*2.5m (L*W*H)	5.0KW	8.0KW	30.0m ² (L=10.0m, W=3.0m)
9	70m ³ /Day	9.5*2.2*2.5m (L*W*H)	5.0KW	8.0KW	36.0m ² (L=12.0m, W=3.0m)
10	80m ³ /Day	10.5*2.2*2.5m (L*W*H)	5.5KW	9.0KW	39.0m ² (L=13.0m, W=3.0m)
11	90m ³ /Day	11.0*2.2*2.5m (L*W*H)	5.5KW	9.0KW	39.0m ² (L=13.0m, W=3.0m)
12	100m ³ /Day	11.8*2.2*2.5m (L*W*H)	6.0KW	10.0KW	42.0m ² (L=14.0m, W=3.0m)

MBR System Advantages

- 1). No need the Pipeline or Municipal Sewers, It treats all wastewater on-site
- 2). Really Plug-and-Play, automated with PLC controls +Touch Screen
- 3). Footprint less – Saves Valuable Land
- 4). MBR Effluent with features of High-Quality and stable



MBR System Containerized



Key Parts/Components



Hinada wastewater solution provider

Extensive project management and technical experience to tailor personalized environmental solutions for you. for wastewater capacity between 200---5000/ day, our engineer team will offer proposal as your requirement.

Tailored Solutions

- 1). Consultation and Design: Customized solutions to meet wastewater treatment needs and comply with environmental regulations.
- 2). Installation Support: Full installation of treatment plants for efficient operation.
- 3). Technical Support: Ongoing assistance with troubleshooting, maintenance, and upgrades.
- 4). Training: Staff training for proper system operation and maintenance.
- 5). After-Sales Service: Reliable support to address issues and ensure system performance.



Projects Case



Food Wastewater Treatment Plant

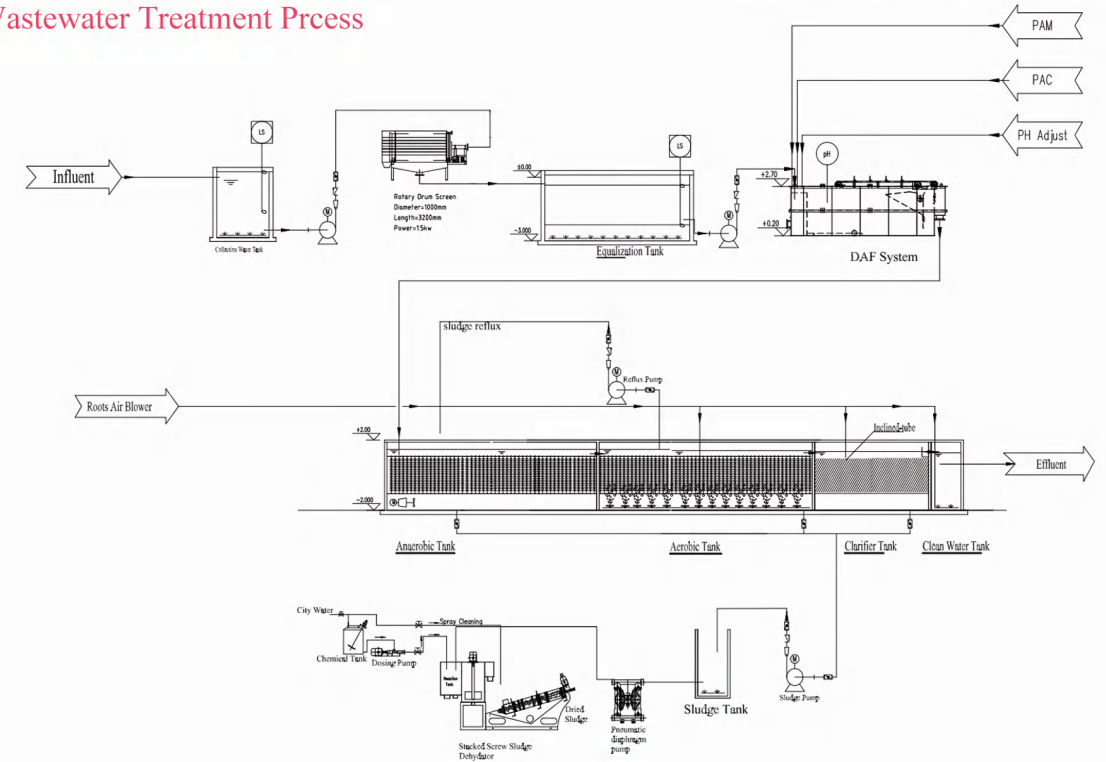
Hospital Wastewater



Slaughter House Wastewater

Textile Wastewater

Food Wastewater Treatment Press



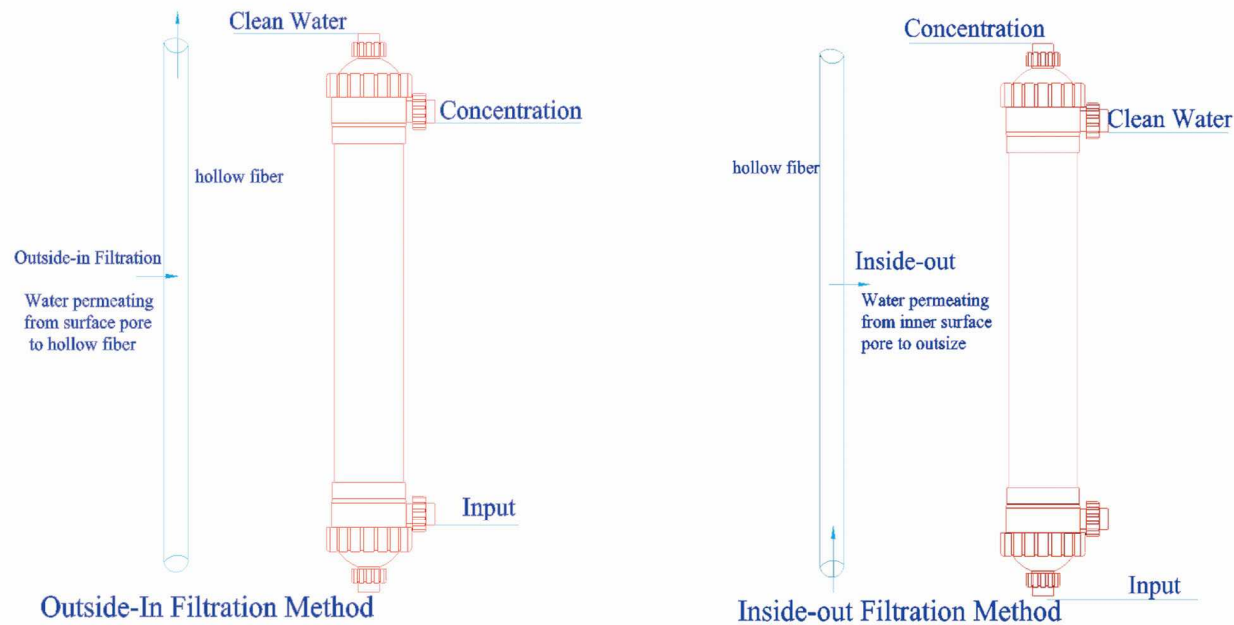
Ultrafiltration Membrane



Hinada Series UF Elements could be used for filtration of various kind of Industrial Process Water, Borewell Water, Surface Water, Seawater and Treated wastewater of ETP and STP System With low to moderate total suspended solids (TSS) Content (<50mg/L)



Provide quality UF Membranes 10 years with variety industrial application experience, based on modification of Polyvinylidene Fluoride (PVDF) and polyvinyl chloride (PVC) Membrane technology . reliably enhancing product yield. Online integrity testing and validation enables secure filtration for any stream requiring clarification, concentration, and purification. Our vast experience and drive for excellence can be put to use in your facility – quickly and easy.



4inch UF membrane cell

Ideal for: Small capacity project less than 5m³/H UF Plant or Lab Test



Model	NM-UF-90(Material: PVC ally)	NM-UF-90 (Material: PVDF)
Diameter of Hollow fibers	1.0/1.96mm	0.6/1.2mm
Filtration Method	Inside-out	Outside-in
Effective Membrane Area	4.8m ²	8.0m ²
Design Flow rate	60---160L/m ² .H	60---160L/m ² .H
Potting Material	Epoxy resine	Epoxy resine
Housing Material	U-PVC	U-PVC
Molecular Cut off(Dal)	100,000 Dalton	100,000 Dalton
Dimensions(mm)	ø 90*1175mm	ø 90*1175mm
Gross Weight	7.0kgs	7.0kgs
Feature	Price more reasonable, for clean water filtration that the input turbidity better less than 15NTU.	High anti-pollution and better flow rate, the input burbdity better less than 50NTU.

8 inch UF membrane cell

Ideal for: Medium capacity project around 5--40m³/H UF Plant



Model	NM-UF-200(Material: PVC ally)	NM-UF-200 (Material: PVDF)
Diameter of Hollow fibers	1.0/1.96mm	0.6/1.2mm
Filtration Method	Inside-out	Outside-in
Effective Membrane Area	28m ²	38m ²
Design Flow rate	60---160L/m ² .H	60---160L/m ² .H
Potting Material	Epoxy resine	Epoxy resine
Housing Material	U-PVC	U-PVC
Molecular Cut off(Dal)	100,000 Dalton	100,000 Dalton
Dimensions(mm)	ø 200*1485mm	ø 200*1425mm
Gross Weight	30.0kgs	28.0kgs
Working Pressure	0.2---0.4MPa	0.2---0.4MPa
Feature	Price more reasonable, for clean water filtration that the input turbidity better less than 15NTU.	High anti-pollution and better flow rate, the input burbdity better less than 50NTU.

9 inch UF membrane cell

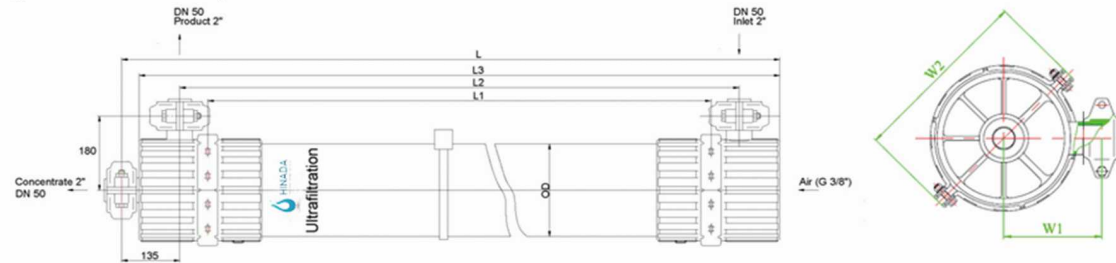
Ideal for : Medium and big capacity UF System above 30m³/H reasonable



Product Specifications

Model	Filtration	Material	Membrane area		Design Flow Rate		Weight (empty/ water filled)	
			m ²	ft ²	Liters	Gallons	Kg	lbs
NM-UF-2860	Outside-in	PVDF	51	549	4000	1062	55/83	126/183

Figure 1: NM-UF-2860 (9-inch)

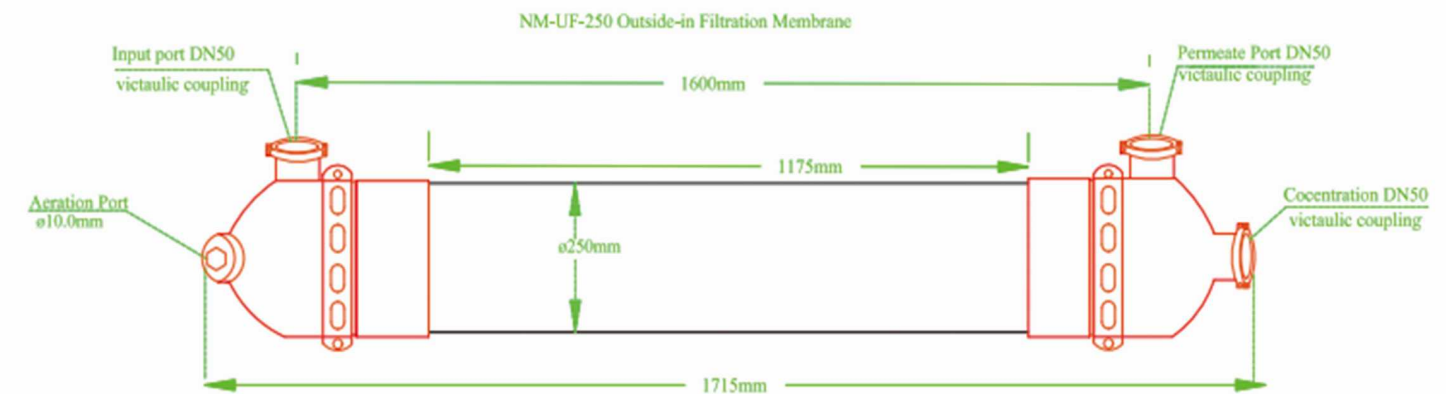


Properties	Length				Diameter	Width	
	Units	L	L1	L2		L3	W1
SI (mm)	1860	1500	1630	1820	225	180	342
US (inch)	73.2	59.1	64.2	71.7	8.9	7.1	13.5

Model	NM-UF-2860 (Material: PVDF)
Diameter of Hollow fibers	0.6/1.2mm
Filtration Method	Outside-in
Effective Membrane Area	51m ²
Design Flow rate	60---160L/m ² .H (2500L---4000L/H)
Potting Material	Epoxy resin
Housing Material	U-PVC
Molecular Cut off(Dal)	100,000 Dalton
Dimensions(mm)	ø 225*1860mm
Gross Weight	50.0kgs
Feature	High anti-pollution and better flow rate, the input turbidity better less than 50NTU.
Working Pressure	0.2---0.4MPa
Pore size	0.01—0.1µm (Aaverage 0.05µm)

10 inch UF membrane cell

Ideal for : Medium and big capacity UF System above 50m³/H reasonable



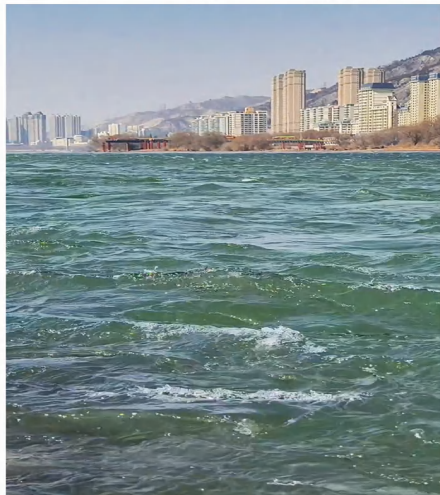
Model	NM-UF-250(Material: PVC allay)	NM-UF-250 (Material: PVDF)
Diameter of Hollow fibers	1.0/1.96mm	0.6/1.2mm
Filtration Method	Inside-out	Outside-in
Effective Membrane Area	48m ²	78m ²
Design Flow rate	60---160L/m ² .H (2.5---3.5m ³ /H)	60---160L/m ² .H(3---4m ³ /H)
Potting Material	Epoxy resin	Epoxy resin
Housing Material	U-PVC	U-PVC
Molecular Cut off(Dal)	100,000 Dalton	100,000 Dalton
Dimensions(mm)	ø 250*1715mm	ø 250*1715mm
Gross Weight	60.0kgs	65.0kgs
Working Pressure	0.2---0.4MPa	0.2---0.4MPa
Pore size	0.01—0.1µm (Aaverage 0.05µm)	0.01—0.1µm (Aaverage 0.05µm)
Feature	Price more reasonable, for clean water filtration that the input turbidity better less than 15NTU.	High anti-pollution and better flow rate, the input turbidity better less than 50NTU.

Drinking Water UF Technology

Ultrafiltration (UF) is a pressure-driven purification process that separates particulate matter from soluble compounds using an ultrafine membrane media. Ultrafiltration is an excellent separation technology for desalination pretreatment, reverse osmosis pretreatment, and wastewater reclamation as well as for producing potable water and clean water.

UF Feature

- * Low Energy Consumption
- * Stable Quality Permeate
- * No Pollution, no chemicals
- * Lower Footprint /Space
- * Low Investment
- * Auto Control System



Water Source

River/Underground water

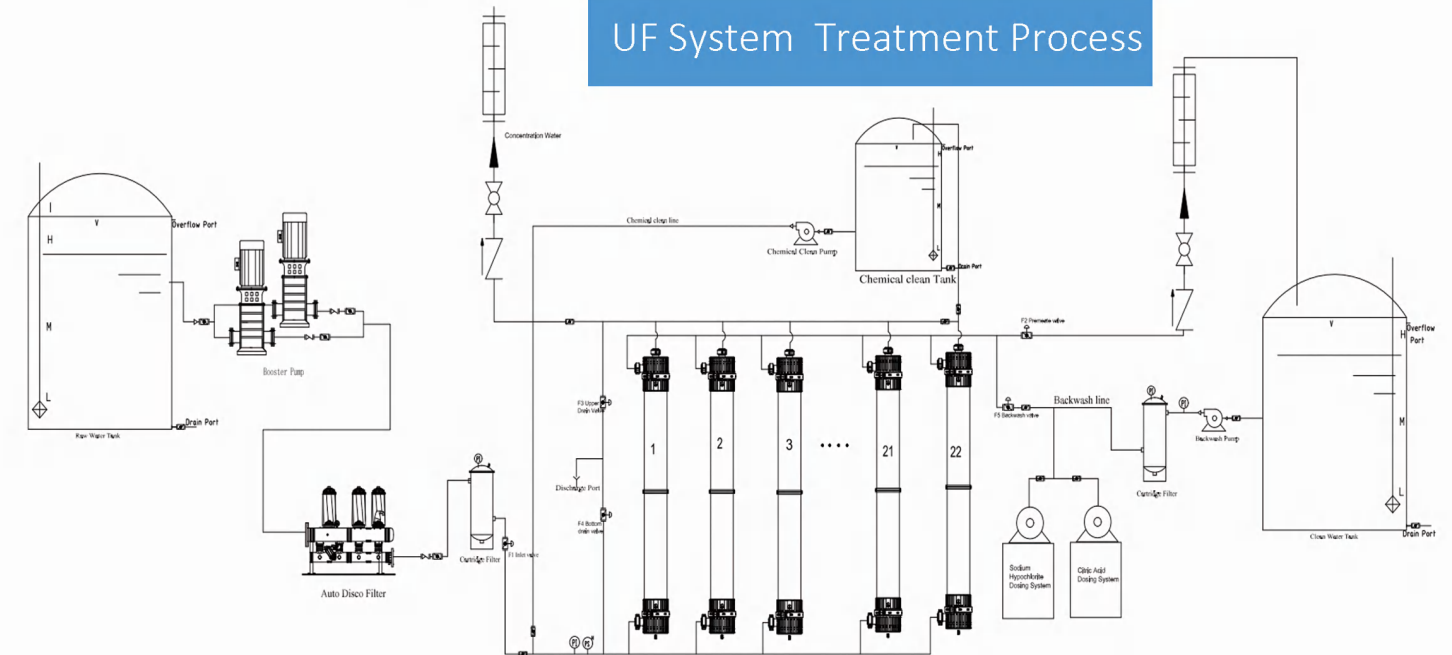


*Safety Water
Quality Life*



With over 10 years of separation-technology leadership and products in more than 1,000 ultra-filtration equipment installations worldwide, we offer a portfolio of products designed for outstanding membrane separation, extreme productivity and efficiency, and exceptional reliability.

UF System Treatment Process



Containerized UF System

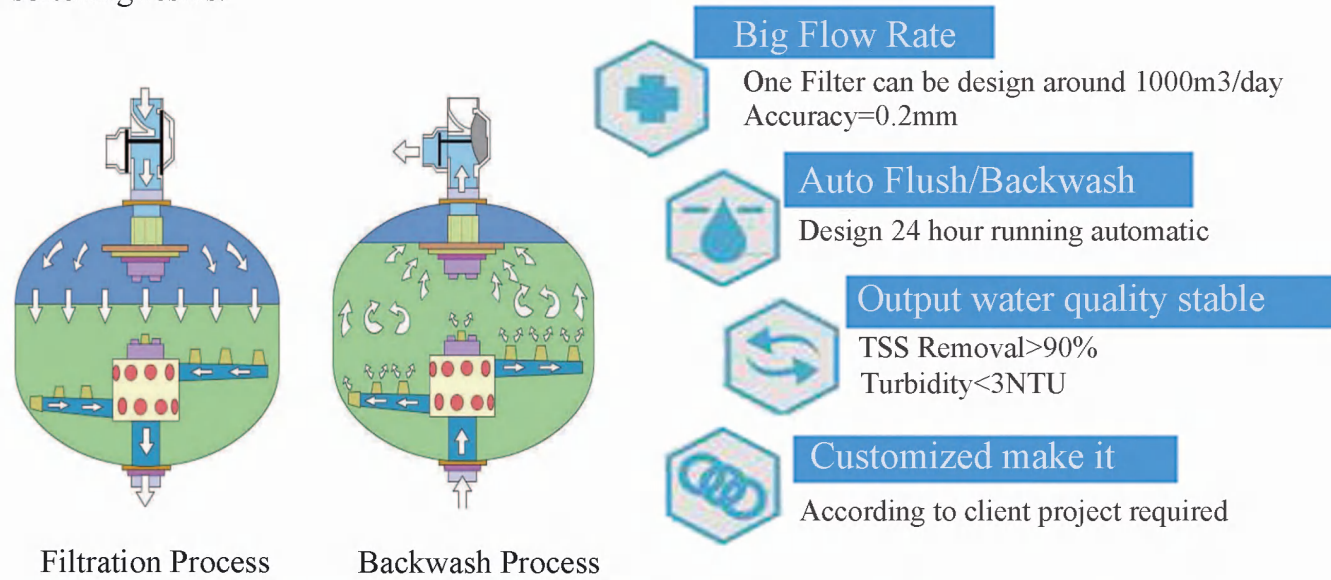


1000m3/Day UF System



Multi-media Filtration System

A multi-media filter is an efficient filtration device that passes high-turbidity water through a bed of granular or non-granular media under pressure. It employs one or more filter media to effectively remove suspended solids, organic matter, colloidal particles, microorganisms, chlorine, odours/tastes, and certain heavy metal ions, thereby reducing turbidity and improving overall water quality. Commonly used media include quartz sand, anthracite, manganese sand (greensand), and softening resins.



Filter Vessel Specification

Model	Dimension	Inlet/out Port	Design Capacity(m3/H)	Vessel Body Height
HND-600	Φ600×1900×4.0	DN50	3~5	1220mm
HND-800	Φ800×2300×4.0	DN50	5~8	1220mm
HND-1000	Φ1000×2500×5.0	DN50	8~10	1500mm
HND-1200	Φ1200×2700×5.0	DN65	12~15	1500mm
HND-1500	Φ1500×2850×5.0	DN80	18~25	1500mm
HND-1800	Φ1800×3400×6.0	DN80	25~38	1800mm
HND-2000	Φ2000×3600×6.0	DN100	34~42	1800mm
HND-2200	Φ2200×3850×8.0	DN125	38~48	1800mm



SUS304 Multimedia Filtration System

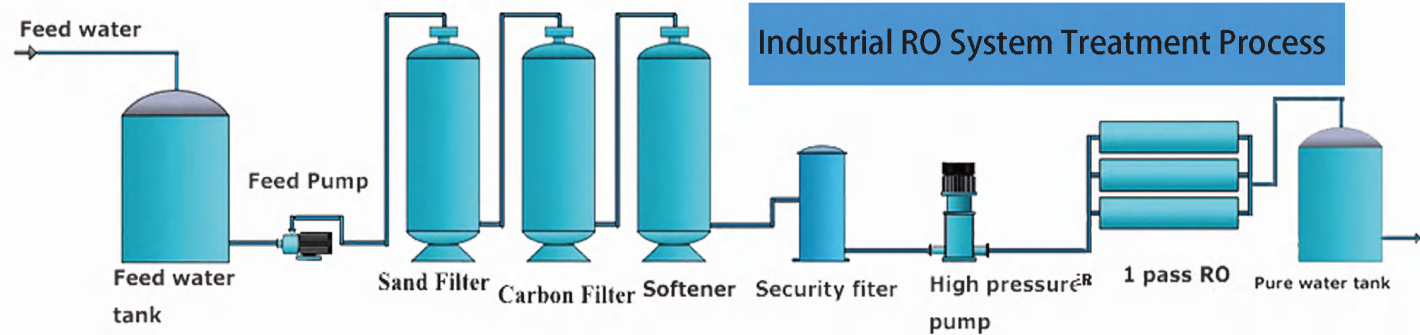


2000m3/Day Multimedia Filtration System Project



Industrial RO Filtration Systems

Industrial Reverse Osmosis Systems offer one of the best ways of producing clean water for your drinking water plant. Unlike other water filtering solutions, these systems are very efficient, being capable of removing up to 95 – 99% of the contaminants floating in the drinking water. And Industrial Reverse Osmosis System designed to convert high TDS saline content water (Underground Well Water, Seawater, city water, or Industry Brackish water) to drinking water or industry application purpose.



Industrial RO System One-Stop Solution

One-Stop Solution



1

- 1). Water Quality Analysis and Requirement Confirmation
- 2). Proposal for System Configuration and Calculation
- 3). Make Drawing about the Processing , Layout, Assembly Drawings, Pipeline Diagrams, Electrical Diagrams



6

Customer Service /Technical Support

- 1). Provide export documents for client custom declar
- 2). Online support, provide video / operation manual
- 3). Offer project-site technical support.

Top Brand and Quality Inspection



2

- 1). Making the schedual and purchase arrangement
- 2). Choose Quality components according to contract
- 3). Inspect all the parts or equipments strictly.



5

Packaging/Loading/Shipping

- 1). Packaging in Plywood case or Carton or Container
- 2). Do Custom declar
- 3). Follow up shipping situations



Containerized RO System

Assemble the Equipment



3

- 1). Welding the frame skid according to drawing
- 2). Assemble the pumps/valves /membrane/ pipe
- 3). Install the control panel /Gauge /meters/ cables.



4

Test and Commissioning in factory

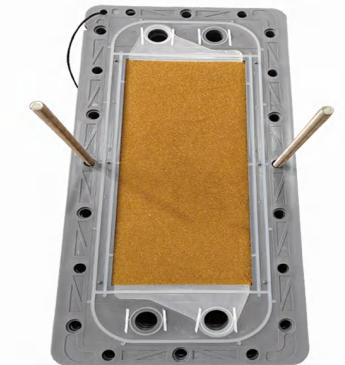
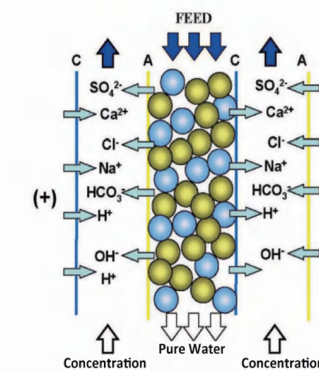
- 1). Test each of the parts of equipment manual
- 2). Operate in automatic mode with water
- 3). Running in automatic mode 24 hours and checks





EDI General Description:

Electrodeionization (EDI) is a continuous, chemical-free process of removing ionized and ionizable species from feedwater using DC power to provide ultrapure water for the pharmaceutical and biotechnology industries. EDI is typically used to polish reverse osmosis (RO) permeate at recovery rate above 90%, the EDI permeate Resistivity can be around 17.52 Ω (omega), and is a smart alternative to — and effective replacement of — conventional mixed bed ion exchange (IX).



Typical Applications

The product water from EDI in applications such as:

- * Water for injection
- * Pharmaceutical purified water
- * Laboratory purified water systems
- * Biotechnology industries
- * electronic conductor industries and so on

Feed Water Specifications	
Total Exchangeable Anions (TEA as CaCO3)	<60mg/L
Conductivity Equivalent	<103µS/cm
Temperature	5—45 degree
Total Hardness (As CaCO3)	<1.0mg/L
Silica (SiO2)	<1.0mg/L
Total Organic carbon (TOC as C)	<0.5mg/L
Total Chlorine	<0.05mg/L
Fe, Mn, H2S	<0.01mg/L
Boron	<1.0mg/L
PH	5--10
Oil and Grease	Nondetectable
Particulate	2 stages RO Permeate better
Oxidizing Agents	Nondetectable
Color	<5 APHA

EDI Permeate Water Quality	
Resistivity	>10Mohm-cm
Sodium	<3ppb
Silica (SiO2)	As low as 5ppb
Sodium removal efficiencies	>99.9% removal
Silica (SiO2) removal efficiencies	Up to 99% removal
Operation Parameters	
Recovery	Up to 96%
Voltage	0—300VDC
Amperage	0—5.2ADV
Inlet Pressure	<6.0 bar
Pressure Drop	<1.5—3 bar
Maximum Sanitization temperature	60 degrees
Maximum Sanitization Inlet Pressure	2.1 bar

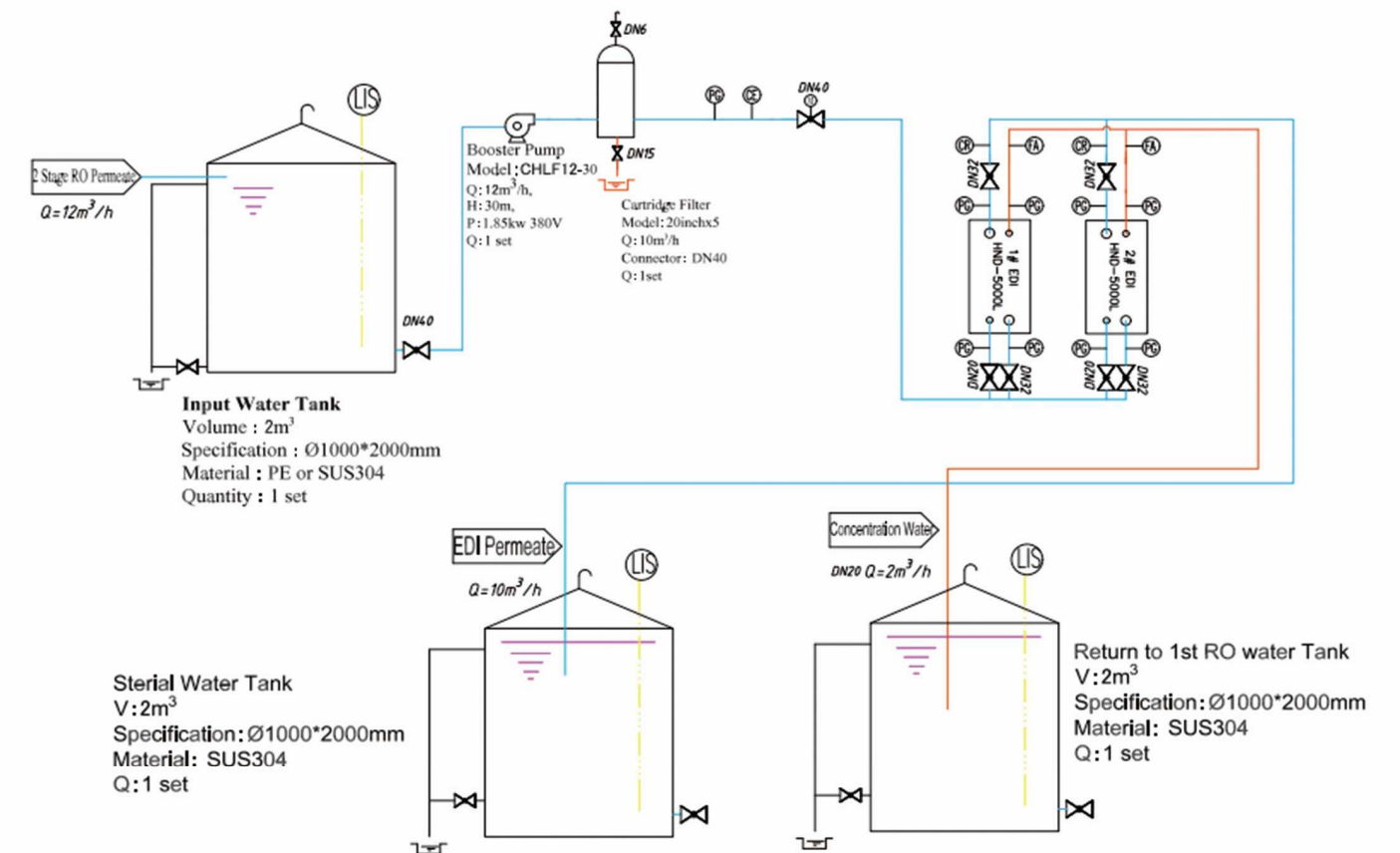
Electrodeionization (EDI) Stacks and EDI System for Ultrapure Water



EDI Stacks Specification

Type	HND-500L	HND-1000L	HND-3000L	HND-5000L
Nominal flow rate (m ³ /h)	0.5	1.0	3.0	1.5
Recovery rates (%)	75-85	85-95	90-95	90-95
Resistivity (MΩ.cm)	≥15	≥15	≥15	≥15
Working voltage Range (VDC)	18-50	25-70	50-150	70-250
Working current (ADC)	2.5-3.2	2.5-3.2	2.5-3.2	2.5-3.2
Working Pressure (MPa)	0.15-0.4	0.15-0.4	0.15-0.4	0.15-0.4
Maximum pressure (MPa)	0.4	0.4	0.4	0.4
Clean Water Input /Output Port	DN25	DN25	DN25	DN25
Concentrated input/ Outlet Port	DN20	DN20	DN20	DN20
Dimensions (Width x height x depth)	315x685x145mm	315x685x209mm	315x685x377mm	315x685x515mm
Shipping weight	50kgs	63kgs	90kgs	136kgs

Hinada the leading manufacturer of EDI Stacks and EDI System for high purity water according to project requirement.



10m³/Hour EDI System treatment process