



OVERVIEW COMPANY

Jiangsu Bangtec Environmental Sci-Tech Co.,Ltd. is a membrane separation technology based manufacturer, specialized in providing innovative membrane products and solutions to multiple industries.



Vision

Acceleration for worldwide resource-conserving society



Mission

Through outstanding membrane products and design concepts, to achieve efficient energy conserving and environmental protection



Values

Be faithful in words, sincere in actions, and strive for excellence



30 acres' own land
100million investment
200million fixed assets



R&D/Manufacture :
30000 m² in Nantong city,
Jiangsu province



Professional 8 doctors, ranging from membrane material/system/solution etc. , full coverage technology on water treatment

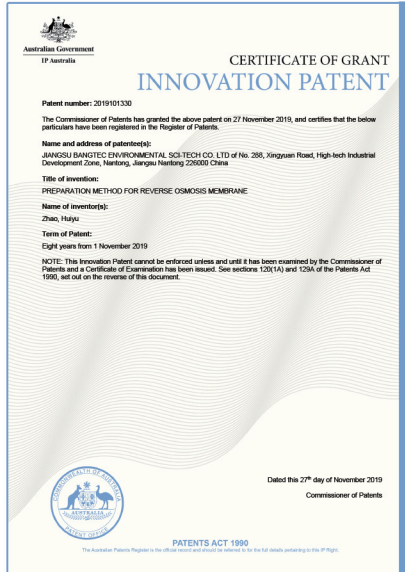
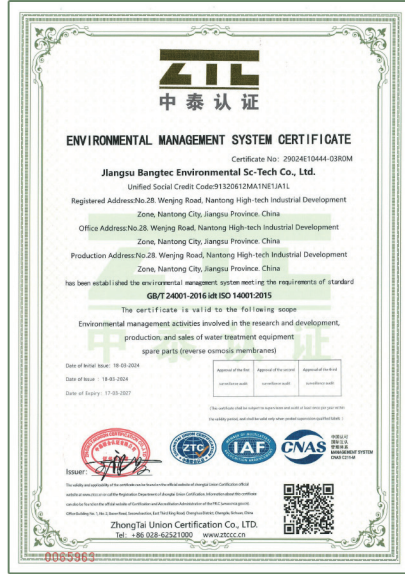


ENTERPRISE QUALIFICATION



ENTERPRISE QUALIFICATION

ENTERPRISE QUALIFICATION



**By 2022, Bangtec has obtained:
 one international invention patent;
 nine Chinese invention patents;
 Sixteen China national practical new-type patent**



OUR PRODUCT



OUR PRODUCT

Membrane Sheet Type & Performance

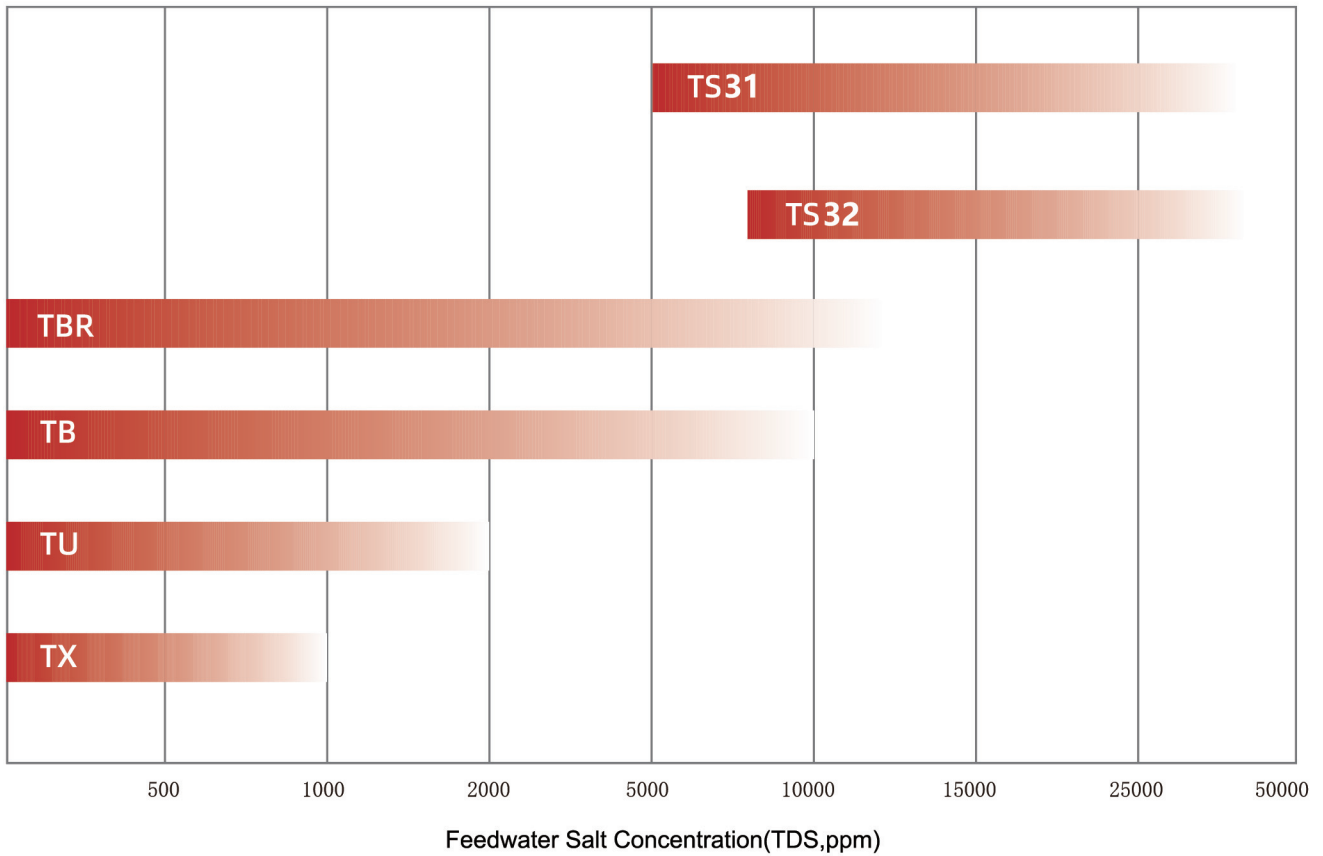
Sheet Type	Model	Min Rejection (%)	Flow (GFD)	Test Condition					
				Test solution	Test solution Concentration (ppm)	Pressure psi(MPa)	Cross-flow velocity (m/s)	Temperature (°C)	PH
ULP Sheet	TU31	99.6	28-34	NaCl	1500	150 (1.03)	≥0.45	25	7-8
	TU32	99.5	32-38						
	TU23	99.3	38-44						
	TU14	99.1	45-55						
	TU15	98.5	55-60						
	TU16	97.5	>60						
BW Sheet	TB	99.6	32-38	2000	225 (1.55)	≥0.45	25	7-8	
BW-FR Sheet	TBR	99.6	28-34						
SW Sheet	TS31	99.7	19-25						32000
	TS32	99.6	25-31						
NF Sheet	TN3	98.0	28-34	MgSO ₄	2000	100(0.69)	≥0.45	25	7-8
	TN2	97.0	32-38						
	TN1	97.0	38-44						



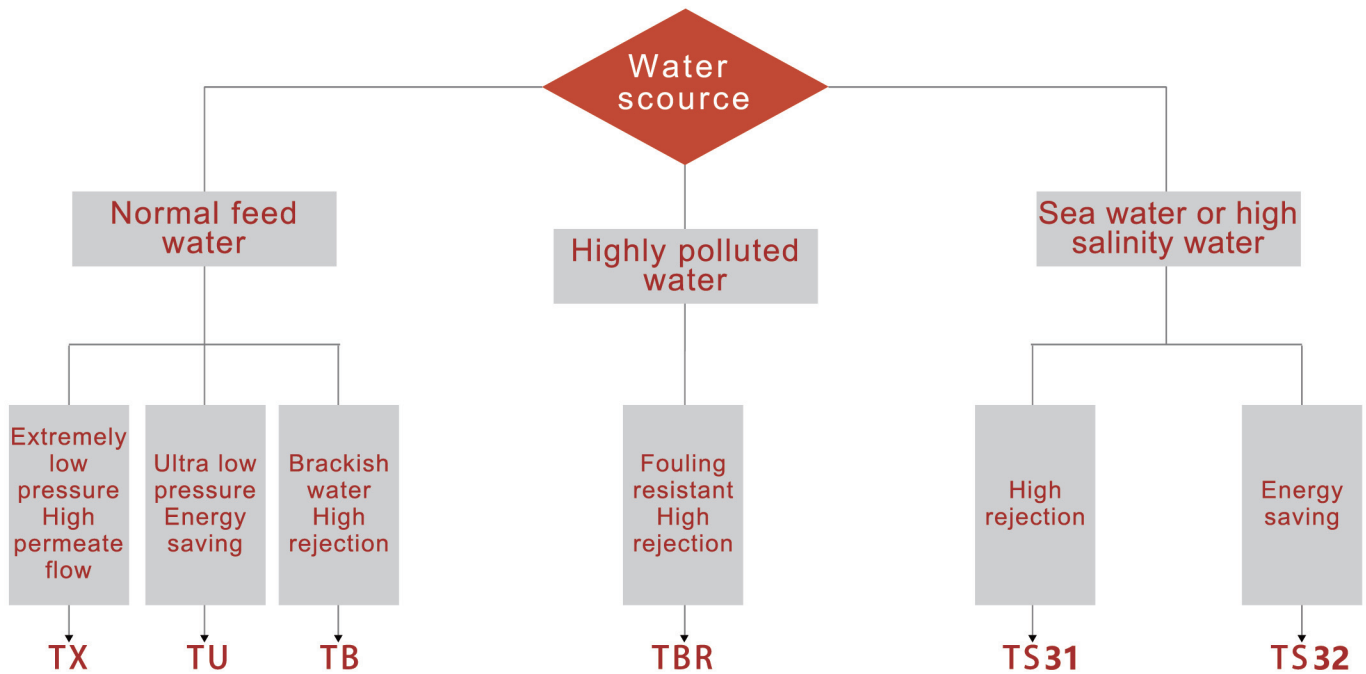


OUR PRODUCT

1. Membrane elements selection according to salt content of feed water



2. Membrane elements selection according to water source



OUR PRODUCT

Specifications of Industrial RO Membrane

Type	Model	Stable Rejection (%)	Min Rejection (%)	Permeate Flow GPD(m ³ /d)	Effective Membrane Area ft ² (m ²)	Spacer Thickness (mil)	Test conditions (water temperature 25 °C)		
							Test solution Concentration NaCl (ppm)	Test Pressure psi (Mpa)	Recovery (%)
Extra low pressure Element	TX-8040-400	98.0	97.5	12000(45.4)	400(37.2)	34	500	100(0.69)	15
	TX-4040	98.0	97.5	2700(10.2)	85(7.9)	34			
Ultra low pressure Element	TU3-8040-400	99.5	99.3	10500(39.7)	400(37.2)	34	1500	150(1.03)	15
	TU3-8040-440	99.5	99.3	12000(45.4)	440(40.9)	28			
	TU2-8040-400	99.3	99.0	12000(45.4)	400(37.2)	34			
	TU1-8040-400	99.0	98.5	14000(53.0)	400(37.2)	34			
	TU3-4040	99.5	99.3	2200(8.3)	85(7.9)	34			
	TU2-4040	99.3	99.0	2700(10.2)	85(7.9)	34			
	TU1-4040	99.0	98.5	3100(11.7)	85(7.9)	34			
Brackish Water Element	TB-8040-400	99.7	99.5	10500(39.7)	400(37.2)	34	2000	225(1.55)	15
	TB-8040-440	99.7	99.5	12000(45.4)	440(40.9)	28			
	TB-4040	99.7	99.5	2400(9.1)	85(7.9)	34			
Fouling Resistant Element	TBR-8040-400	99.7	99.5	10500(39.7)	400(37.2)	34	2000	225(1.55)	15
	TBR-4040	99.7	99.5	2400(9.1)	85(7.9)	34			
Sea Water Desalination Element	TS3-8040-400	99.8	99.7	7500(28.4)	400(37.2)	34	32000	800(5.50)	8
	TS2-8040-400	99.7	99.6	9000(34.0)	400(37.2)	34			
	TS3-4040	99.8	99.7	1600(6.1)	85(7.9)	34			
	TS2-4040	99.7	99.6	1900(7.2)	85(7.9)	34			
Nanofiltration Membrane Element	TN3-8040-400	98.0	97.5	9000(34.0)	400(37.2)	34	2000 MgSO ₄	100(0.69)	15
	TN2-8040-400	97.0	96.5	10500(39.7)	400(37.2)	34			
	TN1-8040-400	97.0	96.5	12000(45.4)	400(37.2)	34			
	TN3-4040	98.0	97.5	2000(7.5)	85(7.9)	34			
	TN2-4040	97.0	96.5	2400(9.1)	85(7.9)	34			
	TN1-4040	97.0	96.5	2700(10.2)	85(7.9)	34			

OUR PRODUCT

TU series-ultra low pressure RO membrane element

Product features



It is applicable to the treatment of water sources such as surface water, groundwater, tap water and municipal water with salt content below 2000 ppm.



Higher rejection rate and water flow can be obtained under lower operating pressure, which can effectively reduce costs and improve economic benefits. The membrane element has good stability and fouling resistance.



It is widely used in packaging water, drinking water, boiler make-up water, food processing and pharmaceutical manufacturing industries.

RO element specification & performance

Model	Stable Rejection (%)	Min Rejection (%)	Permeate Flow GPD(m ³ /d)	Effective Membrane Area ft ² (m ²)	Spacer Thickness (mil)	Replaceable products
TU 3-8040-400	99.5	99.3	10500(39.7)	400(37.2)	34	ECO PRO-400
TU 3-8040-440	99.5	99.3	12000(45.4)	440(40.9)	28	ECO PRO-440
TU 2-8040-400	99.3	99.0	12000(45.4)	400(37.2)	34	BW30HRLE-440
TU 1-8040-400	99.0	98.5	14000(53.0)	400(37.2)	34	XLE-440
TU 3-4040	99.5	99.3	2200(8.3)	85(7.9)	34	ULP31-4040
TU 2-4040	99.3	99.0	2700(10.2)	85(7.9)	34	ULP21-4040
TU 1-4040	99.0	98.5	3100(11.7)	85(7.9)	34	YQS-4040
Testing Conditions	Operating pressure		150psi(1.03MPa)			
	Test solution temperature		25℃			
	Test solution concentration (NaCl)		1500ppm			
	PH value		7-8			
	Recovery rate of single membrane element		15%			
	Flow range of single membrane element		± 15%			
Operating Conditions & Limits	Maximum operating pressure		600psi(4.14MPa)			
	Maximum temperature		45℃			
	Maximum feedwater flow		Maximum feedwater flow: 8040-75gpm (17m ³ /h) 4040-16gpm (3.6m ³ /h)			
	Maximum feedwater SDI15		5			
	Maximum concentration of free chlorine		< 0.1ppm			
	Allowed pH range for chemical cleaning		2-11			
	Allowed pH range for feedwater in operation		1-13			
	Maximum pressure drop per element		15psi(0.1MPa)			

OUR PRODUCT

TX series - Extra low pressure RO membrane element

Product features



Suitable for treatment of surface water, groundwater, tap water, municipal water and other water sources, with water TDS below 1000 ppm.



Under extremely low operating pressure, high rejection and high flow can be obtained, thus the operation cost of relevant pumps, pipelines, containers and other equipment, are reduced.



It is widely used in bottled water, direct drinking water, boiler make-up water, food processing and pharmaceutical manufacturing industries with low operation cost and high water quality.

RO element specification & performance

Model	Stable Rejection (%)	Min Rejection (%)	Permeate Flow GPD(m ³ /d)	Effective Membrane Area ft ² (m ²)	Spacer Thickness (mil)	Replaceable products
TX-8040-400	98.0	97.5	12000(45.4)	400(37.2)	34	ESPA4-8040
TX -4040	98.0	97.5	2700(10.2)	85(7.9)	34	ESPA4-4040
Testing Conditions	Operating pressure		100psi(0.69MPa)			
	Test solution temperature		25°C			
	Test solution concentration (NaCl)		500ppm			
	PH value		7-8			
	Recovery rate of single membrane element		15%			
	Flow range of single membrane element		± 15%			
Operating Conditions & Limits	Maximum operating pressure		600psi(4.14MPa)			
	Maximum temperature		45°C			
	Maximum feedwater flow		Maximum feedwater flow: 8040-75gpm (17m ³ /h) 4040-16gpm (3.6m ³ /h)			
	Maximum feedwater SDI15		5			
	Maximum concentration of free chlorine		< 0.1ppm			
	Allowed pH range for chemical cleaning		2-11			
	Allowed pH range for feedwater in operation		1-13			
	Maximum pressure drop per element		15psi(0.1MPa)			



OUR PRODUCT

TB series - brackish water RO membrane element

Product features



It is applicable to the treatment of surface water, groundwater, tap water, standard drainage water, circulating water and other water sources with water TDS below 10000 ppm.



Stable performance, strong uniformity, high flow, high rejection, long service life.



It is widely used in municipal water supply, surface water reuse, boiler make-up water, chemical industry, papermaking, printing and dyeing and other fields.

RO element specification & performance

Model	Stable Rejection (%)	Min Rejection (%)	Permeate Flow GPD(m ³ /d)	Effective Membrane Area ft ² (m ²)	Spacer Thickness (mil)	Replaceable products
TB-8040-400	99.7	99.5	10500(39.7)	400(37.2)	34	BW30-400/34
TB-8040-440	99.7	99.5	12000(45.4)	440(40.9)	28	BW30HR-440
TB-4040	99.7	99.5	2400(9.1)	85(7.9)	34	LP21-4040 LP100
Testing Conditions	Operating pressure		225psi(1.55MPa)			
	Test solution temperature		25°C			
	Test solution concentration (NaCl)		2000ppm			
	PH value		7-8			
	Recovery rate of single membrane element		15%			
	Flow range of single membrane element		± 15%			
Operating Conditions & Limits	Maximum operating pressure		600psi(4.14MPa)			
	Maximum temperature		45°C			
	Maximum feedwater flow		Maximum feedwater flow: 8040-75gpm(17m ³ /h) 4040-16gpm(3.6m ³ /h)			
	Maximum feedwater SDI15		5			
	Maximum concentration of free chlorine		< 0.1 ppm			
	Allowed pH range for chemical cleaning		2-11			
	Allowed pH range for feedwater in operation		1-13			
	Maximum pressure drop per element		15psi(0.1MPa)			

OUR PRODUCT

TBR series - Fouling Resistant RO membrane element

Product features



It is applicable to the desalination and advanced treatment of challenging water sources such as conventional water source, brackish water, standard discharge water, mine water and circulating water with water TDS below 10000



The fouling resistant membrane sheets produced by special process improve the roughness and electric charge of the membrane surface, and reduce the growing and adsorption of pollutants and microorganisms on the membrane surface, giving better stability and longer service life.



It is widely used in reclaimed water reuse, surface water reuse, boiler make-up water, process production water, coal chemical industry, mine water, papermaking wastewater, printing and dyeing wastewater and other fields.

RO element specification & performance

Model	Stable Rejection (%)	Min Rejection (%)	Permeate Flow GPD(m ³ /d)	Effective Membrane Area ft ² (m ²)	Spacer Thickness (mil)	Replaceable products
TBR-8040-400	99.7	99.5	10500(39.7)	400(37.2)	34	BW30FR-400/34
TBR-4040	99.7	99.5	2400(9.1)	85(7.9)	34	FR11-4040
Testing Conditions	Operating pressure		225psi(1.55MPa)			
	Test solution temperature		25 °C			
	Test solution concentration (NaCl)		2000ppm			
	PH value		7-8			
	Recovery rate of single membrane element		15%			
	Flow range of single membrane element		± 15%			
Operating Conditions & Limits	Maximum operating pressure		600psi(4.14MPa)			
	Maximum temperature		45 °C			
	Maximum feedwater flow		Maximum feedwater flow: 8040-75gpm (17m ³ /h) 4040-16gpm (3.6m ³ /h)			
	Maximum feedwater SDI15		5			
	Maximum concentration of free chlorine		< 0.1 ppm			
	Allowed pH range for chemical cleaning		2-11			
	Allowed pH range for feedwater in operation		1-13			
	Maximum pressure drop per element		15psi(0.1MPa)			

OUR PRODUCT

Sea Water Desalination RO Element

Product features



It is suitable for desalination and advanced treatment of seawater and high salinity brackish water. With ultra-high rejection rate, it can bring long-term optimal economy to the seawater desalination system.



34mil Feed channel spacer is adopted to reduce the pressure drop and enhances the anti pollution and anti cleaning ability of membrane element.



It is widely used in seawater, salt rejection of high concentration brackish water, boiler make-up water, papermaking, textile printing and dyeing, material concentration and other fields.

RO element specification & performance

Model	Stable Rejection (%)	Min Rejection (%)	Permeate Flow GPD(m ³ /d)	Effective Membrane Area ft ² (m ²)	Spacer Thickness (mil)	Replaceable products
TS3-8040-400	99.8	99.7	7500(28.4)	400(37.2)	34	SW30HRLE-400
TS2-8040-400	99.7	99.6	9000(34.0)	400(37.2)	34	SW30XLE-400
TS3-4040	99.8	99.7	1600(6.1)	85(7.9)	34	
TS2-4040	99.7	99.6	1900(7.2)	85(7.9)	34	
Testing Conditions	Operating pressure		800psi(5.52MPa)			
	Test solution temperature		25°C			
	Test solution concentration (NaCl)		32000ppm			
	PH value		7-8			
	Recovery rate of single membrane element		8%			
	Flow range of single membrane element		±15%			
	Operating Conditions&Limits	Maximum operating pressure		1200psi(8.28MPa)		
Maximum temperature		45°C				
Maximum feedwater flow		Maximum feedwater flow: 8040-75gpm(17m ³ /h) 4040-16gpm(3.6m ³ /h)				
Maximum feedwater SDI15		5				
Maximum concentration of free chlorine		<0.1ppm				
Allowed pH range for chemical cleaning		2-11				
Allowed pH range for feedwater in operation		1-13				
Maximum pressure drop per element		15psi(0.1MPa)				

OUR PRODUCT

TN series - nanofiltration membrane element

Product features



It is applicable to brine purification, heavy metal removal, desalination and concentration of materials, recovery of sodium chloride solution and removal of COD in sewage. With a molecular weight cut-off of about 200 dalton, it has a high rejection rate for most divalent and multivalent ions, and transmits monovalent salts at the same time.



34mil Feed channel spacer is adopted to reduce the pressure drop and enhances the anti-fouling and ease of ability of membrane element.



It is widely used in the fields of zero-liquid discharge of wastewater, chloralkali denitration, lithium extraction from Salt Lake, material decolorization, material separation and soon.

NF element specification & performance

Model	Stable Rejection (%)	Min Rejection (%)	Permeate Flow GPD(m ³ /d)	Effective Membrane Area ft ² (m ²)	Spacer Thickness (mil)	Replaceable products
TN3-8040-400	98.0	97.5	9000(34.0)	400(37.2)	34	DK8040F30
TN2-8040-400	97.0	96.5	10500(39.7)	400(37.2)	34	DL8040F30
TN1-8040-400	97.0	96.5	12000(45.4)	400(37.2)	34	NF270-400/34i
TN3-4040	98.0	97.5	2000(7.5)	85(7.9)	34	DK4040F30
TN2-4040	97.0	96.5	2400(9.1)	85(7.9)	34	DL4040F30
TN1-4040	97.0	96.5	2700(10.2)	85(7.9)	34	NF270-4040
Testing Conditions	Operating pressure		100psi(0.69MPa)			
	Test solution temperature (MgSO ₄)		25°C			
	Test solution concentration		2000ppm			
	PH value		7-8			
	Recovery rate of single membrane element		15%			
	Flow range of single membrane element		±15%			
Operating Conditions&Limits	Maximum operating pressure		1200psi(8.28MPa)			
	Maximum temperature		45°C			
	Maximum feedwater flow		Maximum feedwater flow: 8040-75gpm(17m ³ /h) 4040-16gpm(3.6m ³ /h)			
	Maximum feedwater SDI15		5			
	Maximum concentration of free chlorine		<0.1ppm			
	Allowed pH range for chemical cleaning		2-11			
	Allowed pH range for feedwater in operation		1-13			
	Maximum pressure drop per element		15psi(0.1MPa)			



CASE STUDIES



CASE STUDIES



Power plant boiler water softening



Wastewater reuse of papermaking and pulping



Wastewater reuse in coal chemical plant



Reuse of printing and dyeing water



Wastewater reuse for coal mine well



Reuse of production wastewater in PCB Park



Process water for chlor alkali enterprises



Drinking water purification

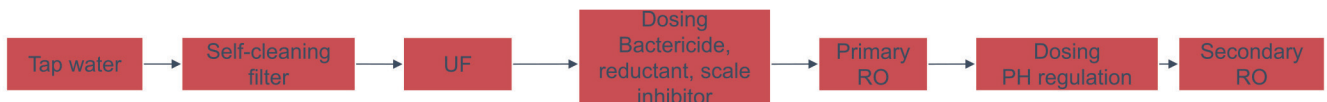
OUR PROJECT

Solar Energy Industry

Production water project

Component Model	System Scale	Quantities	Installation Time
TB-8040-400	2-stage 8000 T/d	10 sets	2022

System	Arrangement/quantity
Primary RO system	4 sets, each of 19 pressure vessels (6 cores in), 114*4=456 elements
Secondary RO system	4 sets, each of 12 pressure vessels (6 cores in), 72*4=288 elements
Concentrated water recovery system	2 sets, 12 pressure vessels (6 cores in), 72*2=144 elements



Printing and Dyeing Wastewater

Water Reuse Project

Component Model	System Scale	Quantities	Installation Time
TBR - 8040	50000 T/d	3 phases 14 sets in total	2019

System	Arrangement/quantity
1 st phase	3 sets, each of 38 pressure vessels (6 cores in), 228*3=684 elements
2 nd phase	8 sets, each of 24 pressure vessels (6 cores in), 144*8=1152 elements
3 rd phase	3 sets, each of 28 pressure vessels (6 cores in), 168*3=504 elements



OUR PROJECT

Iron and Steel Industry

Water Reuse Project

Component Model	System Scale	Quantities	Installation Time
TBR - 8040	125 T/h	3 sets	2019
TBR - 8040	70 T/h	1 set	2019
System	Arrangement/quantity		
Primary RO system	3 sets, each of 20 pressure vessels (6 cores in), 120*3=360 elements		
Concentrated water RO system	1 set, 12 pressure vessels (6 cores in), 72*1=72 elements		



Power Plant Boiler Water

Production water project

Component Model	System Scale	Quantities	Installation Time
TBR - 8040-400	158 T/h	3 sets	2021.10
TU3 - 8040-440	134 T/h	3 sets	2021.10
System	Arrangement/quantity		
1 st phase	3 sets, each of 32 pressure vessels (6 cores in), 192*3=576 elements		
2 nd phase	3 sets, each of 20 pressure vessels (6 cores in), 120*3=360 elements		





Jiangsu Bangtec Environmental Sci-Tech Co.Ltd.
Website: www.bangtec.com
Email: market01@bangtec.com