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For Solid Liquid Separation

TNW

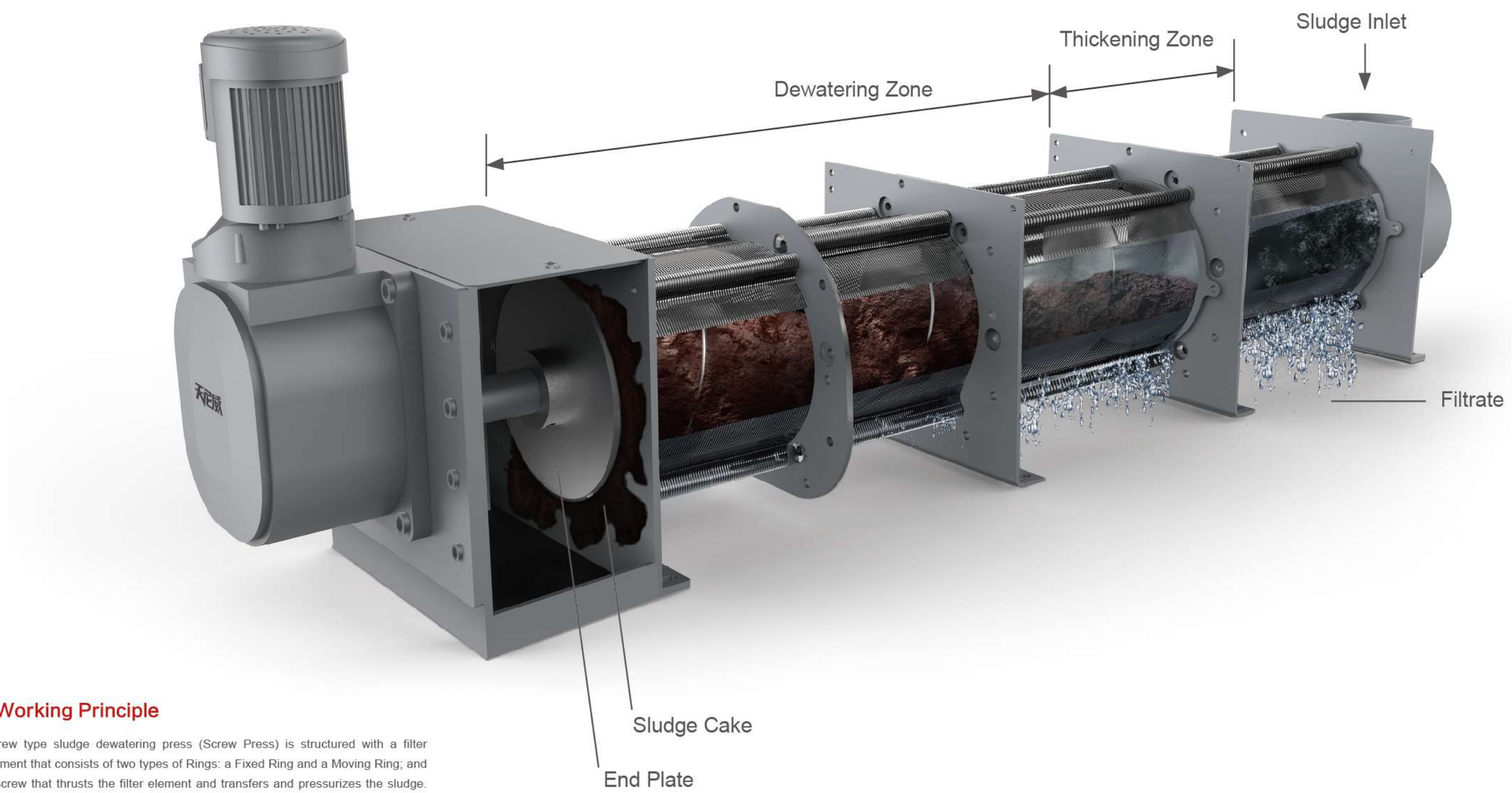
Jiangsu Tianniwei Environmental Protection Technology Co.,Ltd

TIANNIWEI ENVIRONMENTAL PROTECTION

Jiangsu Tianniwei Environmental Protection Technology co.,ltd is a company focuses on design, supply and manufacture environmental protection equipment also provides professional installation and debugging. A group of high technology, high level of environmental protection engineering and technical personnel, with rich experience in engineering and technical management ability and product quality management, perfect testing equipment can make sure each component excellent, each link is meticulous smooth, thus we can provide you with satisfying products and excellent service. With strong responsibility and thanksgiving, Tianniwei is willing to create a green earth, environmental friendly home with domestic and abroad customers. Welcome!

TNW SERIES

SCREW press



| Working Principle

Screw type sludge dewatering press (Screw Press) is structured with a filter element that consists of two types of Rings: a Fixed Ring and a Moving Ring; and a screw that thrusts the filter element and transfers and pressurizes the sludge. The gaps between the Rings and the screw pitch are designed to gradually get narrower towards the direction of sludge cake outlet and the inner pressure of the filter element increases due to the volume compression effect, which thickens and dewaters the sludge.

TNW SERIES SCREW press

| Technology Advantage 1

Equipped with pre-thickening tank and better at dealing with low concentration sludge.

Improved gravity thickening shortcomings and realized high efficient thickening.
Flocculation and thickening are integrated, dewater becomes easier.
Combine with regulating end plate, sludge concentration can be optimized.

Sludge concentration 2000mg/L-50000mg/L

| Technology Advantage 2

Fixed and Moving rings replace filter cloth.

The rotation of screw shaft pushes the detaching of Moving rings from Fixed rings, which brings self-cleaning process continuously and automatically. This enables stable and constant dewatering to take place without depending on high pressure flushing water to prevent clogging. This also enables being ideal for oily sludge, which easily causes clogging and is difficult to treat with other types of dewatering equipment.

Self-cleaning

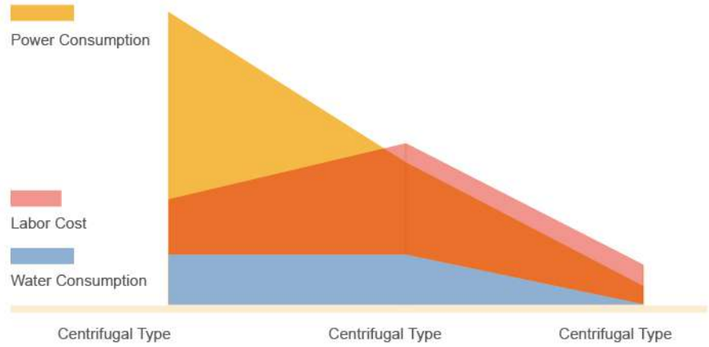
Clog-free

Ideal for oily sludge

| Technology Advantage 3

Low noise, low vibration, power saving, water saving.

As the main component, the screw rotates very slow at a rate of 2-4rpm, no need large integration like rollers, so that it consumes very low power and thus environment friendly. The power consumption of screw press is 1/20 of centrifuge which requires rotation at high speed, 1/8 of belt press, which is only 0.01-0.1 Kwh/kg-DS.
Its unique self-cleaning mechanism prevents filter mesh from clogging, then no need for huge amounts of water for clogging prevention. The amount of cleaning water required is about 1/115 of belt press and 1/62 of centrifuge.



| Technology Advantage 4

Reduce infrastructure investment cost, improve treatment effect.

Screw press can directly treat the sludge from aeration tank and second sedimentation tank so no need sludge thickening and sludge storage tank. The infrastructure investment can be greatly saved and the phosphorous release problem is well avoided. Thus the sewage treatment system dephosphorization can be enhanced.
Save infrastructure investment also on mixer, air compressor, washing pump and other related corollary equipment.
Less footprint occupy, less dewatering plant infrastructure investment.

| Technology Advantage 5

Fully automatic control, simple operation and management.

Screw press doesn't have any components like filter cloth or filter pore which are easily clogged.
The operation is safe and easy.
The machine also can be operated automatically by control cabinet.

| Technology Advantage 6

Wide range of application.

Can be widely used in municipal sewage, food, slaughtering breeding, printing and dyeing, oil chemical industry, paper making, leather, pharmaceutical and other industrial of sludge dewatering.

TNW SERIES SCREW press

Special designed Screw Press has wide range of models, the capacity covers from 0.5Kg-DS/h to 1320-1360Kg-DS/h.
We can also provide the most suitable technical proposal based on the actual need.

Specifications

Model	Discharge Height (mm)	Dimension (mm)			N.W (kg)	Operating Weight (kg)	Power (kw)	Water Consumption (L/H)
		L	W	H				
TNW-131	250	1860	700	915	205	300	0.2	24
TNW-132	250	1905	830	915	275	425	0.3	48
TNW-201	350	2555	920	1465	320	470	0.74	32
TNW-202	350	2615	960	1465	470	730	1.11	64
TNW-301	495	3325	870	1760	910	1320	1.5	40
TNW-302	495	3455	1135	1760	1350	2130	2.25	80
TNW-303	495	3670	1560	1760	1820	2880	3	120
TNW-351	585	3475	905	1820	1610	2210	1.1	72
TNW-352	585	3570	1285	1820	2300	3400	2.75	144
TNW-353	585	3645	1725	1820	3350	4850	3.85	216
TNW-354	585	4130	2180	1820	4500	6100	4.95	288
TNW-401	759	3905	1070	2210	2500	3400	1.85	80
TNW-402	759	4240	1570	2210	3480	5200	2.95	160
TNW-403	759	4465	2060	2210	4550	7050	4.05	240
TNW-404	759	4670	2630	2210	6550	9660	5.15	320

Model Reference

Model	Raw Wastewater Waste Activated Sludge Chemical Precipitated Sludge		Dissolved-air Flotation Sludge		Mixed Raw Sludge Aerobic Digestion Sludge Sewage Sludge
Sludge Concentration(TS)	0.2%	1.0%	2.0%	5.0%	3.0%
TNW-131	~4kg-DS/h (~2.0m³/h)	~6kg-DS/h (~0.6m³/h)	~10kg-DS/h (~0.5m³/h)	~20kg-DS/h (~0.4m³/h)	~26kg-DS/h (~0.87m³/h)
TNW-132	~8kg-DS/h (~4.0m³/h)	~12kg-DS/h (~1.2m³/h)	~20kg-DS/h (~1.0m³/h)	~40kg-DS/h (~0.8m³/h)	~52kg-DS/h (~1.73m³/h)
TNW-201	~8kg-DS/h (~4.0m³/h)	~12kg-DS/h (~1.2m³/h)	~20kg-DS/h (~1.0m³/h)	~40kg-DS/h (~0.8m³/h)	~52kg-DS/h (~1.73m³/h)
TNW-202	~16kg-DS/h (~8.0m³/h)	~24kg-DS/h (~2.4m³/h)	~40kg-DS/h (~2.0m³/h)	~80kg-DS/h (~1.6m³/h)	~104kg-DS/h (~3.47m³/h)
TNW-301	~20kg-DS/h (~10m³/h)	~30kg-DS/h (~3.0m³/h)	~50kg-DS/h (~2.5m³/h)	~100kg-DS/h (~2.0m³/h)	~130kg-DS/h (~4.33m³/h)
TNW-302	~40kg-DS/h (~20m³/h)	~60kg-DS/h (~6.0m³/h)	~100kg-DS/h (~5.0m³/h)	~200kg-DS/h (~4.0m³/h)	~260kg-DS/h (~8.67m³/h)
TNW-303	~60kg-DS/h (~30m³/h)	~90kg-DS/h (~9.0m³/h)	~150kg-DS/h (~7.5m³/h)	~300kg-DS/h (~6.0m³/h)	~390kg-DS/h (~13m³/h)
TNW-351	~40kg-DS/h (~20m³/h)	~60kg-DS/h (~6.0m³/h)	~100kg-DS/h (~5.0m³/h)	~200kg-DS/h (~4.0m³/h)	~260kg-DS/h (~8.67m³/h)
TNW-352	~80kg-DS/h (~40m³/h)	~120kg-DS/h (~12m³/h)	~200kg-DS/h (~10m³/h)	~400kg-DS/h (~8.0m³/h)	~520kg-DS/h (~17.3m³/h)
TNW-353	~120kg-DS/h (~60m³/h)	~180kg-DS/h (~18m³/h)	~300kg-DS/h (~15m³/h)	~600kg-DS/h (~12m³/h)	~780kg-DS/h (~26m³/h)
TNW-354	~160kg-DS/h (~80m³/h)	~240kg-DS/h (~24m³/h)	~400kg-DS/h (~20m³/h)	~800kg-DS/h (~16m³/h)	~1040kg-DS/h (~34.68m³/h)
TNW-401	~70kg-DS/h (~35m³/h)	~100kg-DS/h (~10m³/h)	~170kg-DS/h (~8.5m³/h)	~340kg-DS/h (~6.5m³/h)	~442kg-DS/h (~16m³/h)
TNW-402	~135kg-DS/h (~67.5m³/h)	~200kg-DS/h (~20m³/h)	~340kg-DS/h (~17m³/h)	~680kg-DS/h (~13.6m³/h)	~884kg-DS/h (~29.5m³/h)
TNW-403	~200kg-DS/h (~100m³/h)	~300kg-DS/h (~30m³/h)	~510kg-DS/h (~25.5m³/h)	~1020kg-DS/h (~20.4m³/h)	~1326kg-DS/h (~44.2m³/h)
TNW-404	~266kg-DS/h (~133m³/h)	~400kg-DS/h (~40m³/h)	~680kg-DS/h (~34m³/h)	~1360kg-DS/h (~27.2m³/h)	~1768kg-DS/h (~58.9m³/h)

- The capacities above are for reference only. Different sludge type will have different capacity. More detailed issues please consult our sales engineers.
- Throughput of each model is based on sludge cake with 85% water content.
- There is no upper limitation on inlet sludge concentration. However, the target sludge must be flowable.
- Throughput of DAF sludge is based on sludge containing much fat, oil and grease such as meating processing applications etc...
- Throughput of mixed sludge (Primary Sludge and Waste Actived Sludge) and Aerobically Digested sludge is based on sludge containing more than 30% fiber (200 mesh) against Total Solids.

TNW SERIES

MOBILE SLUDGE reduction (MSR) System

| Product Introduction

Mobile Sludge Reduction System (MSR system) is equipped with solid-liquid separation, polymer preparation, independent power generation, pumping and drainage. Dehydration is completed in a relatively closed system, which is skid-mounted, and easy “plug and play” system. MSR systems for sludge dewatering or thickening can be installed for long-term use or simply serve as a temporary solution for a few weeks or months.

The rear door can be opened, and the sludge cake is discharged automatically. The double wings can be opened over the entire width of the container in summer to ensure sufficient fresh air. The wings can be opened simply and safely by a single person using a manual hydraulic lift mecharisn. Its walls and roof can be insulated for alpine region upon request . Air conditioner is also optional to ensure freeze-proof operation and a high degree of comfort.

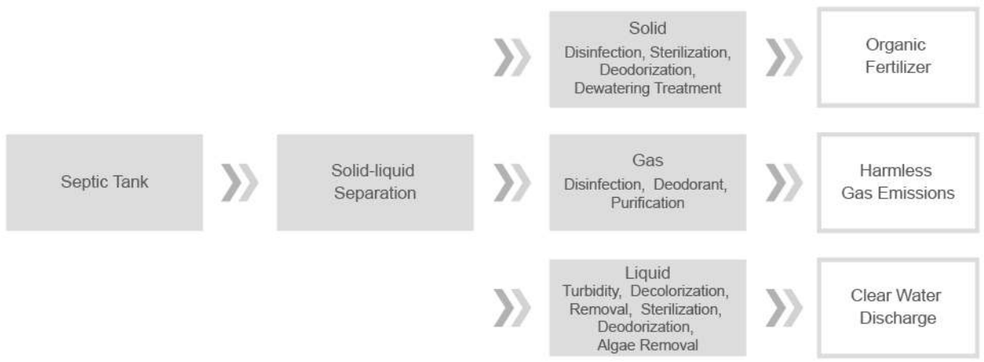
I– Compact design, small footprint

All the system parts installed are optimized for the limited space available in the mobile container, such as the specially designed polymer system. The equipment can be installed on 4.5 m, 6.8 m, 7.8 m, 13m and other types of transport vehicles in line with the transport size standard of ordinary vehicles, the equipment is highly intensive and easy to move.

II– Large capacity and save cost

A wide variety of sizes and infrastructure variants. Capacity varies from 10m3/h to 50m3/h. MSR system highly improves working efficiency, and saves much manpower, also the transportation cost of ordinary sewage suction trucks.

III– One–man operation



TNW SERIES

DISSOLVED air flotation

| Product Introduction

Dissolved Air Flotation system is a kind of commonly used solid-liquid separation equipment in the sewage treatment industry, which can effectively remove the suspended matter, grease, rubber substances in the sewage, and is the main equipment of the sewage preliminary treatment.

DAFs are widely used for treating industrial wastewater, no matter from oil refineries, chemical plants and paper mills or food & beverage industries.

| Structure And Advantages

- Land-occupying province,the solid suspended matter content in effluent can be less than 20 mg/L
- The bubble size is less than 10um, Dissolved gas efficiency is over 95%
- One-button boot, unattended, Cloud digital service can be realized

| Application Scenarios

- Wastewater reuse
- Pretreatment system before membrane treatment
- Eclaimed water reuse
- MBBR biological film process

| Model Reference

Model	Capacity (m³/h)	Total Dimension (mm) L	W	H	Empty Load Weight (T)	Full Load Weight (T)	Reflux Pump (KW)	Air Compressor (KW)	Skimmer (KW)	Mixer1 (KW)	Mixer2 (KW)	Mixer3 (KW)	Total Power (KW)
TNW-DAF005	5	4360	1880	2630	3	8	3	0.55	0.1	0.55	0.55	0.55	5.3
TNW-DAF010	10	4840	2060	2630	4	12	3	0.55	0.1	0.55	0.55	0.55	5.3
TNW-DAF025	25	7480	2400	2940	5	21	3.7	0.75	0.1	0.55	0.55	0.55	6.2
TNW-DAF050	50	9500	2890	3010	8	40	5.5	1.5	0.2	0.75	0.75	0.55	9.25
TNW-DAF080	80	10540	3480	3610	10	60	7.5	1.5	0.2	1.1	0.75	0.75	12.15
TNW-DAF100	100	11380	4170	3620	12	70	11	2.2	0.4	1.5	1.1	1.1	17.7

- The above models are our standard configuration,more detailed issues please consult our sales engineers.

TNW SERIES

INTERNALLY
fed rotary drum screen

| Product Introduction

IRDS internally fed rotary drum screen is the equipment for medium flow, medium low solid rate wastewater. It is compact sized, completely closed and low malfunction machine, which is solid-liquid separation device for normal wastewater. The cuneal or punched type filter can be choose with the machine, the most common aperture is 0.25~6mm.

The drum screen is supported by four rotating wheels, and the horizontal rotation is driven by TEFC reducer, roller chain and sprocket. The spray system is automatically sprayed with water. The one piece structuredesign, solid structure, the high quality stainless steel materials, to ensure that the equipment can long-term trouble-free operation, low energy consumption simple maintenance, reduce the process after the processing load.

| Product Feature

Ss304 stainless steel member; One piece structure; TEFC drive system; Anti-corrosion roller chain; Cylindrical roller bearing and UHMWPE wheel assembly; Screw blade; External spray system; Sealing cover plate; Design of drain pan and slagging discharge;

| Application Scenarios

Municipal Sewage treatment; Paper-making wastewater; Water Treatment Plant; Leather industry; Beverage industry; Slaughterhouse; Pharmaceutical wastewater; Food industry; Petrochemical industry.

| Model Reference

Serviceable range	Solt	ATT (m³/h)						
		Model						
		IRDS-3036	IRDS-3048	IRDS-S3060	IRDS-4248	IRDS-4272	IRDS-5472	IRDS-5496
Dimensions of screen	mm	Φ800x950	Φ800x1220	Φ800x1524	Φ 1060x1220	Φ 1060x1830	Φ 1380x1830	Φ 1380x2440
Municipal sewage	2.5	136	182	227	318	455	636	818
Paper industry	0.1	30	41	52	68	102	145	193
	0.8	72	80	95	125	193	273	364
	1.0	73	103	127	159	227	386	500
Fruit and vegetable industry	0.5	68	91	114	148	216	318	341
	0.8	73	95	118	180	227	455	477
Seafood industry	0.5	55	73	95	125	193	296	382
	0.8	59	80	102	136	205	318	421
Meat industry	0.5	55	73	95	125	193	296	386
	0.8	59	80	102	136	205	318	421
Poultry industry	0.5	55	73	95	125	193	296	386
Dimensions (LxWxH)	m	2.1x1.2x1.4	2.4x1.2x1.4	2.7x1.2x1.4	2.5x1.5x1.8	3.1x1.5x1.8	3.1x1.8x2.3	3.7x1.8x2.3
Influent flange	DIN	Dn150	Dn150	Dn150	Dn200	Dn200	Dn300	Dn300
Effluent flange	DIN	Dn150	Dn150	Dn200	Dn250	Dn250	Dn400	Dn400
Spray influent	G	G1-1/4"	G1-1/4"	G1-1/4"	G1-1/4"	G1-1/4"	G1-1/4"	G1-1/4"
Solids discharge	mm	254x305	254x305	254x305	254x457	254x457	254x610	254x610
Dry weight	kg	500	590	720	680	1020	1700	2250
Wet weight	kg	720	810	950	1050	1500	2000	2800
Power	kw	0.37	0.37	0.37	0.55	0.75	1.10	1.10

TNW SERIES

EXTERNALLY
fed rotary drum screen

Product Introduction

RDS series drum screen mainly focus on the medium flow rate, low and medium solids rate of sewage; which is Is a compact structure, completely closed and low failure rate model, and to solve common sewage solid-liquid separation equipment. The screen can be wedge-shaped screen and perforated screen, the common aperture is 0.25~6mm.

During operation, sewage (or other raw water) enters the water tank from the inlet pipe, sprays evenly through the baffle plate (or water distribution pipe) to the front of the drum surface, and flows into the drum through the grid solts, and finally flows out from the lower part.

The suspended matter in the sewage retained on the rotating drum, and with the rotation of the drum, it is sent to the discharging end of the other side from the inlet end, which is shoveled down by the unloading device. The time relay in control cabinet controls the back flush solenoid valve to open and close periodically so that to clean the blockage between the drum bars. The integral design, strong construction and high quality stainless steel material ensure the equipment can long-term operate with trouble-free and low energy consumption. Simple maintenance.

Product Feature

Ss304 stainless steel member; Integral structure; External spray system; Sealing cover plate; Frequency control range 4-20 rpm; Automatic blow slag; Timed back flush.

Application Scenarios

SS316L stainless steel member; Liquid level switch; Backwash solenoid valve; Backwash pump; Electric control cabinet.

Specification

Serviceable range	Solt	ATT (m³/h)								
		Model								
		RDS03 /300	RDS06 /400	RDS06 /700	RDS06 /1000	RDS06 /1300	RDS06 /1600	RDS06 /2000	RDS08 /2000	RDS08 /2500
Size	mm	Φ300x300	Φ610x400	Φ610x700	Φ610x1000	Φ610x1300	Φ610x1600	Φ610x2000	Φ800x2000	Φ800x2500
Municipal sewage	1	N/A	60	100	150	200	240	300	450	560
Paper industry	0.5	6	20	35	50	65	80	100	150	185
Seafood industry	0.75	5	17	30	42	55	68	85	125	160
Meat industry	0.5	4	15	25	38	50	60	75	110	135
	0.75	6	20	35	50	65	80	100	150	185
	1	7.5	25	45	62	80	100	125	185	235
Fruit and vegetable industry	1	12	40	70	100	130	160	200	300	375
Driving power	Kw	0.18	0.37	0.55	0.55	0.55	0.75	0.75	1.1	1.1
Output speed	rpm	18	10	10	10	10	10	10	10	10
Length	mm	860	1000	1300	1600	1900	2200	2600	2650	3100
width	mm	1020	1520	1520	1520	1520	1520	1520	1680	1680
Height	mm	1050	1600	1600	1600	1600	1600	1600	1950	1950
Water out height	mm	350	500	500	500	500	500	500	650	650
Water inlet flange	DIN	DN65	DN80	DN100	DN150	DN150	DN150	DN200	DN200	DN250
Water outlet flange	DIN	DN100	DN150	DN150	DN150	DN200	DN200	DN250	DN250	2xDN200
Back wash nozzle	G	G1/2"	G1/2"	G1/2"	G1/2"	G1/2"	G1/2"	G1/2"	G1/2"	G1/2"
Vent nozzle	3A	Φ2"	Φ2"	Φ2"	Φ2"	Φ2"	Φ2"	Φ2"	Φ2"	Φ2"
Slag notch	DIN	DN100	DN150	DN150	DN150	DN150	2xDN150	2xDN150	2xDN150	2xDN150
Net weight	kg	41	76	95	109	123	142	164	205	245
Operating weight	kg	68	136	164	196	232	273	327	409	491

TNW SERIES

ROTARY DRUM
screen

| Product Introduction

Drum-type grille decontamination machine integrates the functions of traditional mechanical grille, conveying and screw press. Rotary drum filter screen contains all function of traditional mechanical filter screen, conveyor and screw press. Waste water enters into drum through rotary drum inlet, and flows through side screen gap of rotary drum. Suspended solids in waste water will be withheld in rotary drum. Rotary drum filter screen rotates at the speed of 4-6r/min. Residue in screen gap will be cleaned by the nylon brush and wash nozzle on upward side of drum. All suspended solids and Residues will be pressed and dewatered through screw conveyor, and conveyed to hopper on the top, and conveyed away. Rotary drum filter screen is widely used in pretreatment of urban sewage.

| Main feature

The whole machine has compact structure, small floor space and easy installation, operation and maintenance;
The gap between equipment bars is small, which can generally be designed in the range of 6~12mm;
High pollution interception efficiency, closed transportation, no pollution to the environment;
The equipment can be fully controlled with stable operation, low energy consumption and low noise;
Automatic cleaning is carried out during the operation of the equipment, and it will never be blocked.

| Principle of operation

The equipment is installed in the water channel at 35 °to the horizontal plane. The sewage flows into the drum from the end of the drum, the water flows out through the grid slits of the grid.and the solid waste is filtered in the grid basket. The cleaning arm with rake teeth moves in a circle. When cleaning the grille gap, the rake teeth extend into the grille to take out the solids. When the cleaning arm is at a high point, the rubbish is re-moved from the rake tines and falls into the rubbish by the washing of water and the action of the slag baffle.In the screw conveying bucket of the collecting device, it is dehydrated by the action of changing the pitch during the conveying process, squeezed dryin the upper compression area, and the squeezed water is returned to the water channel, and the garbage is sent to the container or subsequent equipment for further processing.

| Model Reference

Model	TNW-ZGGS-600	TNW-ZGGS-800	TNW-ZGGS-1000	TNW-ZGGS-1200	TNW-ZGGS-1400	TNW-ZGGS-1600	TNW-ZGGS-1800	TNW-ZGGS-2000	TNW-ZGGS-2200	TNW-ZGGS-2400
Rotary drum diameter (mm)	ϕ600	ϕ800	ϕ1000	ϕ1200	ϕ1400	ϕ1600	ϕ1800	ϕ2000	ϕ2200	ϕ2400
Channel width (mm)	640	840	1040	1240	1440	1640	1840	2040	2240	2440
Power (kw)	1.5			1.5		2.2				
Screen gap (mm)	Water flow rate (m³/h)									
0.5	70	130	220	290	420	560	700	800	1050	1280
1	120	220	370	500	720	950	1200	1500	1800	2100
2	190	330	550	760	1100	1400	1800	2250	2700	3250
3	230	400	680	930	1300	1760	2200	2700	3300	3800
4	240	430	720	1000	1400	2050	2700	3300	4000	4600
5	252	460	800	1100	1580	2200	2900	3600	4300	5200

TNW SERIES

AUTOMATIC POLYMER
preparation unit

Automatic Polymer Preparation Unit is for powder polymer preparation, designed for homogeneity in flocculant concentration.

Optimized design can ensure the polymer goes through the maturation process using the smallest footprint.

| Specification

Model	Capacity (L/h)	Powder hopper capacity (L)	Material	Power (KW)	Dimensions (mm)			Weight (kg)
					L	W	H	
TNW-500L	500	65	SUS304	0.99	1400	1520	1870	280
TNW-1000L	1000	65	SUS304	0.99	2000	1300	1660	410
TNW-2000L	2000	65	SUS304	1.36	2440	1520	1965	550
TNW-4000L	4000	65	SUS304	1.36	3000	1800	2115	680
TNW-5000L	5000	65	SUS304	3.55	4000	1550	1830	960
TNW-6000L	6000	65	SUS304	3.55	4000	1800	2080	1050
TNW-8000L	8000	65	SUS304	4.65	4500	1800	2100	1280
TNW-10000L	10000	100×2	SUS304	4.9	5000	1800	2100	1560

PE POLYMER
preparation unit

PE Polymer Preparation Unit is a simple dosing unit made of PE. The unit is composed of stirring motor, mixer, dosing port, water inlet and washing water inlet.
It is low cost which is applicable to small scale, personnel onsite project.

| Specification

Model	Capacity (L/h)	Dimensions (mm)			Power (KW)	Mixing motor (KW)	Dosing pump (KW)
		L	W	H			
TNW-500L-PE-1	500	830	1410	1580	1	0.75	0.25
TNW-500L-PE-2	1000	1660	1410	1580	2	0.75×2	0.25×2
TNW-500L-PE-3	1500	2490	1410	1580	3	0.75×3	0.25×3
TNW-1000L-PE-1	1000	1120	1720	1706	1	0.75	0.25
TNW-1000L-PE-2	2000	2240	1720	1706	2	0.75×2	0.25×2
TNW-1000L-PE-3	3000	3360	1720	1706	3	0.75×3	0.25×3
TNW-2000L-PE-1	2000	1400	2000	2200	1.65	1.1	0.55
TNW-2000L-PE-2	4000	2800	2000	2200	3.3	1.1×2	0.55×2
TNW-2000L-PE-3	6000	4200	2000	2200	4.95	1.1×3	0.55×3

TNW SERIES

DISC air diffuser

Disc air diffuser is used to increase oxygen content in wastewater treatment. As the air passes through the device, it is divided into countless small bubbles.

It is a kind of Horizontal spindle type surface aeration device, the brushing disks are fixed uniformly into the principal axis. The brushing disks start rotating along with the principal axis under drive of driving unit and water mixing, water drops are thrown into the air and finish the aerobic process. It promotes the circulating flow in oxidation ditch.

There are 6 "L" shaped grasping bars around the outer cover of the aerator gland. It can prevent the diaphragm from falling off due to the creep of plastic gland caused by the dilatation pressure of the membrane for a long time under the working condition of the aerator.

| Specification

Model	TNWBQ-215 (7')		TNWBQ-270 (9')		TNWBQ-330 (12')	
Diaphragm material	EPDM	Silicone rubber	EPDM	Silicone rubber	EPDM	Silicone rubber
Thickness of rubber diaphragm	2.0±0.1mm	2.0±0.1mm	2.0±0.1mm	2.0±0.1mm	2.0±0.1mm	2.0±0.1mm
Effective aeration area	0.023m^2	0.023m^2	0.045m^2	0.045m^2	0.070m^2	0.070m^2
Number of single diaphragm holes	About 3500	About 3500	About 6500	About 6500	About10000	About10000
Bubble diameter	0.8–1.5mm	1.0–1.8mm	0.8–1.5mm	1.0–1.8mm	0.8–1.5mm	1.0–1.8mm
Diaphragm life	> 6 yaers	> 6 yaers	> 6 yaers	> 6 yaers	> 6 yaers	> 6 yaers
Standard ventilation	1.5–2.5m^3/h	1.5–2.5m^3/h	2.5–4m^3/h	2.5–4m^3/h	4–6m^3/h	4–6m^3/h
Scope of ventilation	1–5m^3/h	1–5m^3/h	1.5–7m^3/h	1.5–7m^3/h	2.5–10m^3/h	2.5–10m^3/h
Resistance loss	2.0–4.5kPa	2.0–4.0kPa	2.0–4.3kPa	2.0–4.0kPa	2.0–4.2kPa	2.0–4.0kPa
Standard oxygen transfer efficiency	⩾ 38%	⩾ 36%	⩾ 38%	⩾ 36%	⩾ 38%	⩾ 36%
Standard oxygen capacity	⩾ 0.30kgO_2/h	⩾ 0.28kgO_2/h	⩾ 0.37kgO_2/h	⩾ 0.34kgO_2/h	⩾ 0.55kgO_2/h	⩾ 0.52kgO_2/h
Theoretical dynamic area	⩾ 0.78kgO_2/kw*h	⩾ 0.76kgO_2/kw*h	⩾ 0.78kgO_2/kw*h	⩾ 0.76kgO_2/kw*h	⩾ 0.78kgO_2/kw*h	⩾ 0.76kgO_2/kw*h
Service area	⩾ 0.2–0.64m^2/Piece	⩾ 0.2–0.64m^2/Piece	⩾ 0.25–1.0m^2/Piece	⩾ 0.25–1.0m^2/Piece	⩾ 0.4–1.5m^2/Piece	⩾ 0.4–1.5m^2/Piece

TUBE air diffuser

Tubular aerator is a mature, reliable, excellent and widely used aerator. It has the characteristics of low pressure loss, high oxygen transfer rate and easy installation.

The tension of the membrane is much smaller than that of the disk aeration.-adopt the structure of pilot air tank, and the aeration component has no buoyancy;The film uses natural rubber and anti-aging formula, and the membrane has long service life.adopt stainless steel connecting fastener, the interface is not easy to leak and easy to disassemble.

| Low cost and high efficiency

- High oxygen transfer efficiency
- Low cost of total ownership
- Anti-clogging,corrosion resistant

Model	TNWBQ-63		TNWBQ-93		TNWBQ-113	
Diaphragm material	EPDM&ABS tube	Silicone rubber &ABS tube	EPDM&ABS tube	Silicone rubber &ABS tube	EPDM&ABS tube	Silicone rubber &ABS tube
Length	500/750/1000mm	500/750/1000mm	500/750/1000mm	500/750/1000mm	500/750/1000mm	500/750/1000mm
Connector	1"NPT male thread 3/4"NPT male thread	1"NPT male thread 3/4"NPT male thread	1"NPT male thread 3/4"NPT male thread	1"NPT male thread 3/4"NPT male thread	1"NPT male thread 3/4"NPT male thread	1"NPT male thread 3/4"NPT male thread
Bubble size	1–2mm	1–2mm	1–2mm	1–2mm	1–2mm	1–2mm
Design flow	1.7–6.8m^3/h	1.7–6.8m^3/h	3.4–13.6m^3/h	3.4–13.6m^3/h	3.4–17m^3/h	3.4–17m^3/h
Flow range	2–14m^3/h	2–14m^3/h	5–20m^3/h	5–20m^3/h	6–28m^3/h	6–28m^3/h
SOTE	⩾40%(6m submerged)	⩾40%(6m submerged)	⩾40%(6m submerged)	⩾40%(6m submerged)	⩾40%(6m submerged)	⩾40%(6m submerged)
SOTR	⩾ 0.9kgO_2/h	⩾ 0.9kgO_2/h	⩾ 0.9kgO_2/h	⩾ 0.9kgO_2/h	⩾ 0.9kgO_2/h	⩾ 0.9kgO_2/h
SAE	⩾ 8.6kgO_2/kw.h	⩾ 8.6kgO_2/kw.h	⩾ 8.6kgO_2/kw.h	⩾ 8.6kgO_2/kw.h	⩾ 8.6kgO_2/kw.h	⩾ 8.6kgO_2/kw.h
Headless	2200–4800Pa	2200–4800Pa	2200–4800Pa	2200–4800Pa	2200–4800Pa	2200–4800Pa
Service Area	0.75–2.5m^2	0.75–2.5m^2	0.75–2.5m^2	0.75–2.5m^2	0.75–2.5m^2	0.75–2.5m^2
Service life	> 5 yaers	> 5 yaers	> 5 yaers	> 5 yaers	> 5 yaers	> 5 yaers

TNW SERIES

FACTORY photos

MAIN products

Screw Press

Mobile Sludge Reduction (MSR) System

Dissolved Air Flotation

Automatic Polymer Preparation System

PE Polymer Preparation System

Internally Fed Rotary Drum Screen

Externally Fed Rotary Drum Screen

Rotary Drum Screen

Band Screen

Rotary Bar Screen

Drum Precision Filter

Belt Press

Rotary Drum Thickener

Shaftless Screw Conveyor

Rotary Fibre Disk Filtration

Mud Scraper

TNW SERIES

PART OF OUR customers

GLOBAL performance