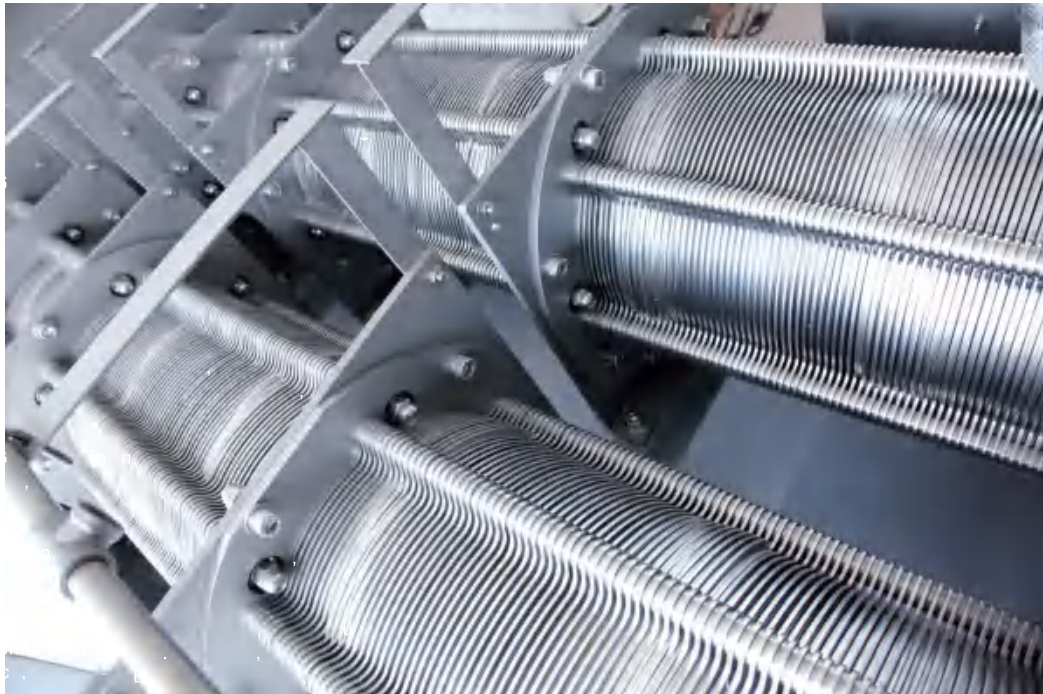
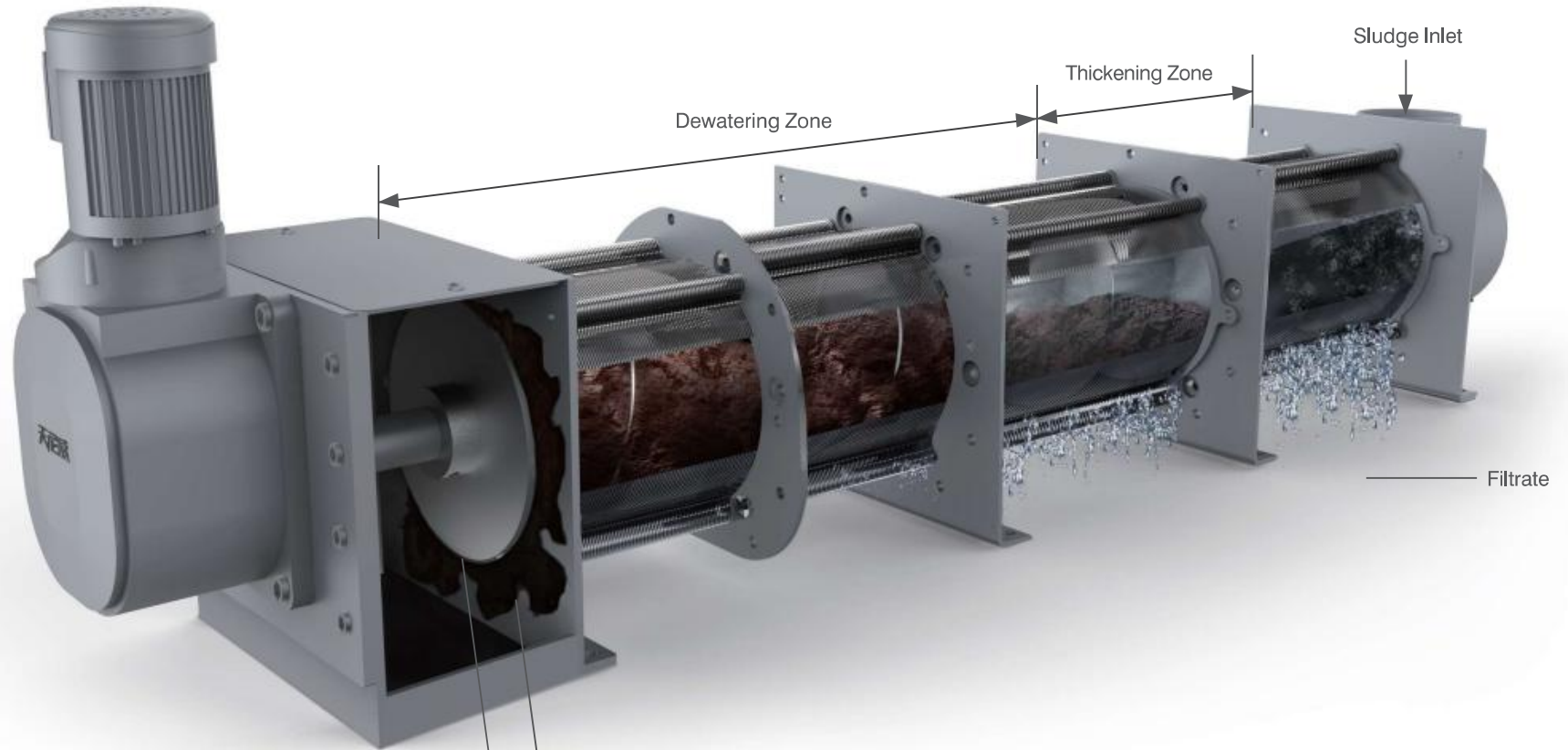


WASTEWATER AND SLUDGE TREATMENT SOLUTIONS



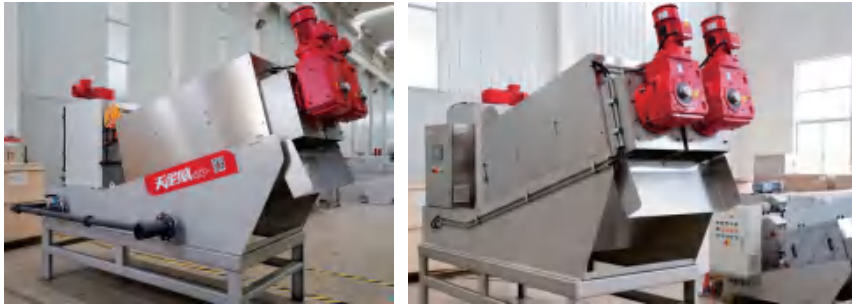
YOUR SOLUTION to POME Sludge Dewatering
With ease and comfort!

BiOREM



I Working Principle

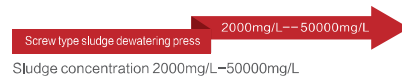
Screw type sludge dewatering press (Screw Press) is structured with a filter element that consists of two types of Rings: a Fixed Ring and a Moving Ring; and a screw that thrusts the filter element and transfers and pressurizes the sludge. The gaps between the Rings and the screw pitch are designed to 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 dewateres the sludge.



I 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.



I 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.



Fixed and Moving rings replace filter cloth

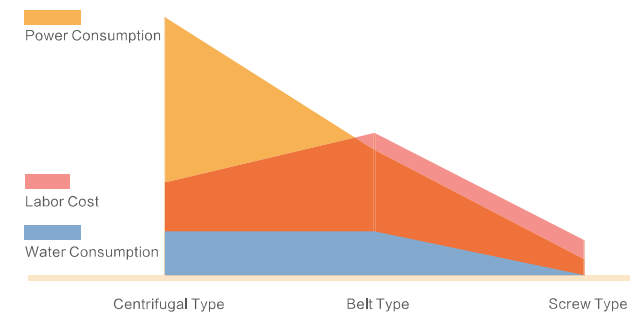


Self-cleaning
Clog-free
Ideal for oily sludge

I 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.



I 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.

I Technology Advantage 5

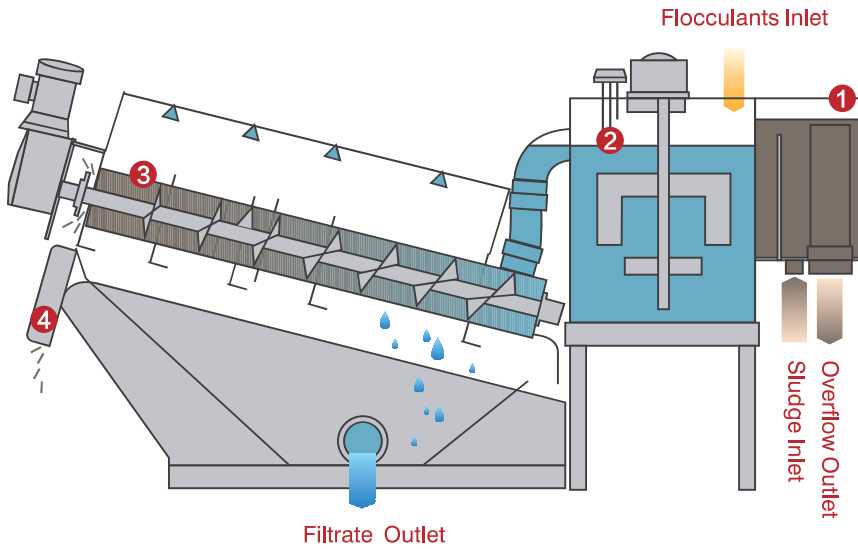
Fully automatic control, simple operation and management.

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.

I Technology Advantage 6

Wide range of application.

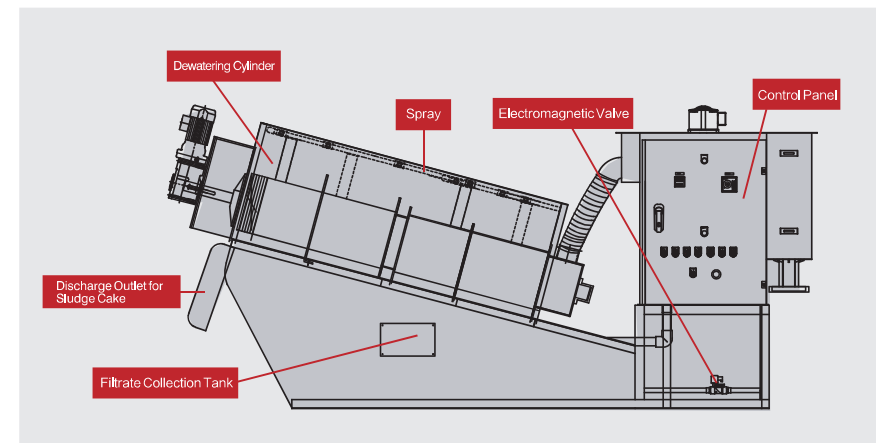
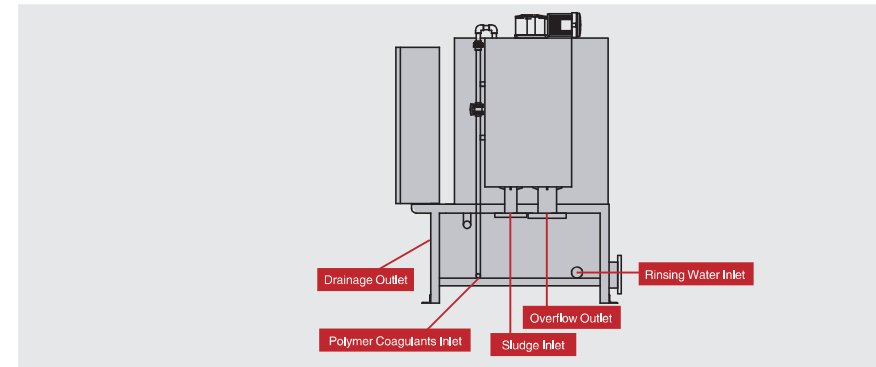
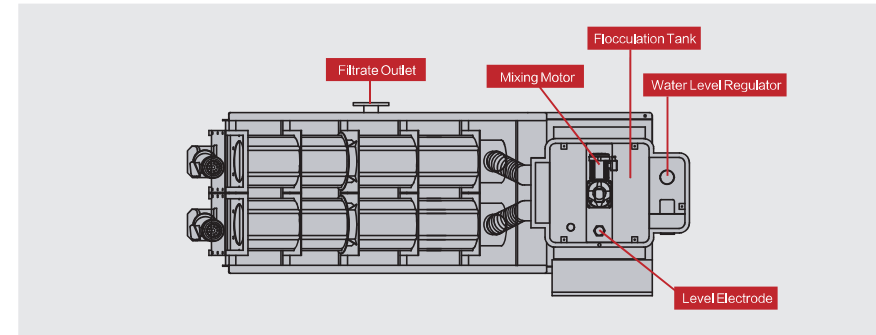
Can be widely used in municipal sewage, food, slaughtering breeding, printing and dyeing, oil chemical industry, paper making, leather, pharmaceutical and other industrial of sludge dewatering.



INW SERIES (Standard Configuration)

1	Flow Control Tank Sludge is fed into the Flow Control Tank by sludge pump, and is regulated with the overflow pipe, returning excess volume to the sludge storage tank.
2	Flocculation Tank Stir and mix the sludge with polymer, forming suitable "floc".
3	Dewatering Cylinder Conditioned sludge is thickened in the thickening zone of the cylinder, and then the inner pressure increased at the dewatering zone helps sludge being well dewatered.
4	Discharge Outlet for Sludge Cake Further pressure is applied from the outlet side with the End plate, discharging sludge cake with 20±5% solids content.

Structure





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	750	1080	205	300	0.2	24
TNW-132	250	1960	870	1080	275	425	0.3	48
TNW-201	350	2440	860	1380	320	470	0.74	32
TNW-202	350	2650	960	1380	470	730	1.11	64
TNW-301	495	3370	940	1670	910	1320	1.5	40
TNW-302	495	3570	1260	1670	1350	2130	2.25	80
TNW-303	495	3830	1620	1670	1820	2880	3	120
TNW-351	585	3900	1160	2190	1610	2210	1.1	72
TNW-352	585	4240	1550	2190	2300	3400	2.75	144
TNW-353	585	4460	2100	2190	3350	4850	3.85	216
TNW-354	585	4660	2650	2190	4500	6100	4.95	288
TNW-401	759	4356	1170	2400	2500	3400	1.85	80
TNW-402	759	4900	1640	2400	3480	5200	2.95	160
TNW-403	759	5030	2240	2400	4550	7050	4.05	240
TNW-404	759	5350	3240	2400	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 meat processing applications etc...

Throughput of mixed sludge (Primary Sludge and Waste Activated Sludge) and Aerobically Digested sludge is based on sludge containing more than 30% fiber (200 mesh) against Total Solids.



AUTOMATIC POLYMER preparation unit



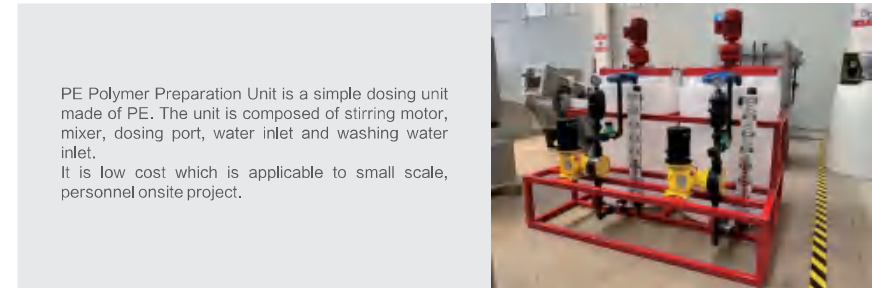
Automatic Polymer Preparation Unit is for powder polymer preparation, designed for homogeneity in flocculant concentration.

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	100x2	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	830	1410	1580	2	0.75 x 2	0.25 x 2
TNW-500L-PE-3	1500	2490	1410	1580	3	0.75 x 3	0.25 x 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 x 2	0.25 x 2
TNW-1000L-PE-3	3000	3360	1720	1706	3	0.75 x 3	0.25 x 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 x 2	0.55 x 2
TNW-2000L-PE-3	6000	4200	2000	2200	4.95	1.1 x 3	0.55 x 3



BioREM

MAIN products

