



Waste Water Treatment
Sludge Treatment
Solid-liquid Separation



NORSEN

WASTE WATER & SLUDGE TREATMENT



SEPARATION PRODUCTS



NORSEN ENVIRONMENTAL ENGINEERING CO.,LTD

www.norsenep.com



BRAND INTRODUCTION

SINCE 2007

NORSEN, is a worldwide leading company in **wastewater & solid-liquid separation** of industrial & municipal wastewater. Our head office and factories are located in the city of Wuxi, Jiangsu province, while we've got branches all over the country as well as agents and distributors all over the world. Founded in 2007 with over 12 years **manufacturing** and wastewater & sludge treatment experience. We offer OEM & wastewater & sludge solutions worldwide.

INNOVATION & SOLUTIONS PROVIDER

Our featured products are Wastewater Treatment & Sludge Dewatering Machine, which can be widely used in varieties of industries, such as papermaking, printing & dyeing, food & beverage, oil & gas, coal mining, pharmacy, livestock, light industries and so on.

NORSEN are constantly focusing on the innovating. We own a powerful R&D team each member of which has decades of experience and in-depth industry knowledge. Along with the enterprise development, we're looking for good partners to cooperation, welcome to join us, do win-win business together. We offer high quality machines, plants and stainless steel equipment for municipal and industrial.



NORSEN SEPARATION TECHNOLOGY

NORSEN, provide innovative separation technologies & equipment for sludge treatment and solid-liquid separation, wastewater treatment, widely used for municipal and industrial on food, chemicals, dairy, slaughter house, refinery, etc. We do OEM and custom-design to make a better solution for customers.



Municipal



Food& Beverage



Dying&Printing



Chemical



Pharmacy



Pulp& Paper



Machinery



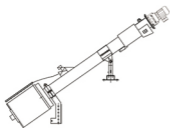
Refinery



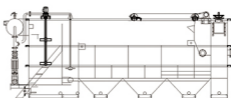
Livestock



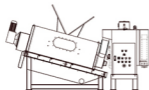
MAIN PRODUCTS



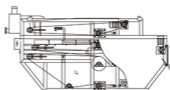
Rotary Drum Screen - RO Series



Dissolved Air Floatation - DAF Series



Multi-Disc Screw Press - ES Series



Belt Press - BPD Series



PRE TREATMENT MECHANICAL SCREENS

MECHANICAL ROTARY SCREEN // RRS Series

Rotary Rake Screen is a solid-liquid separation device which has been widely used in municipal wastewater treatment plant, pre-treatment device for domestic effluents, municipal rainwater & sewage pump station. It is regarded as the ideal solid-liquid separation equipment in water treatment field.



<i>Model</i>	<i>Space</i>	<i>Design Capacity</i>
RRS-600	1~20mm	150~600m ³ /hr
RRS-800	1~20mm	210~900m ³ /hr
RRS-1000	1~20mm	290~1200m ³ /hr
RRS-1200	1~20mm	325~1500m ³ /hr
RRS-1400	1~20mm	400~1750m ³ /hr
RRS-1500	1~20mm	450~1900m ³ /hr

MECHANICAL INTERNAL DRUM SCREEN // IRDS Series

Excellent performance for large particle separation. The corrosion resistant stainless steel construction ensures exceptional wear resistance and makes it ideal for all applications.



<i>Model</i>	<i>Pore Size</i>	<i>Design Capacity</i>
IRDS06/900	1~3mm	15~30m ³ /hr
IRDS06/1200	1~3mm	30~60m ³ /hr
IRDS06/1500	1~3mm	45~85m ³ /hr
IRDS06/1800	1~3mm	60~120m ³ /hr
IRDS08/1800	1~3mm	80~170m ³ /hr
IRDS08/2500	1~3mm	120~250m ³ /hr
IRDS08/3000	1~3mm	160~350m ³ /hr



ROTARY DRUM SCREEN //RO Series

Reliable and well-proven inlet screen for municipal sewage treatment plants and industrial wastewater and process water screening.

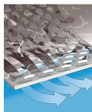


<i>Model</i>	<i>Space</i>	<i>Design Capacity</i>
RO*600	0.5~12mm	120~320m ³ /hr
RO*800	0.5~12mm	200~520m ³ /hr
RO*1000	0.5~12mm	320~860m ³ /hr
RO*1200	2~12mm	640~1200m ³ /hr
RO*1600	2~12mm	850~1600m ³ /hr
RO*2000	3~12mm	1500~2600m ³ /hr
RO*2600	3~12mm	3000~4600m ³ /hr

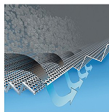
*The different Rotary Drum Fine Screen and Perforated Plate models, from 0.5mm-12mm, more models are available to make custom-design equipment, contact our reps. for more details.



RO1 Wedge wire screen
Gap:0.5mm



RO2 Perforated plate screen
Gap:1mm



RO3 Perforated plate screen
Gap:1mm

YOUR BENEFITS

a) Low headloss – High separation efficiency

Due to the drum's shape and 35° installation the screen area is much larger than that of a vertical or steeply inclined screen, which results in a low headloss, high separation efficiency and maximum throughput.

b) No by-passing

The entire flow enters the screen drum through its open front end and can only leave the drum through its screen area. This prevents plant overflow and guarantees that the screenings are always retained within the screen drum.

c) Several functions combined in one system

Perform the functions of screenings removal, transport, washing, dewatering and compaction in a single space saving unit.

d) Retrofitting

The design of the RO Screens allows for later modification so that the systems can be adapted to changing requirements. The heating and/or integrated screenings washing can be retrofitted. The bar spacing can also be reduced to meet more stringent requirements.

e) Low maintenance

No lubrication. Regular checking and visual inspection are sufficient.



SEPARATION DISSOLVED AIR FLOTATION

DISSOLVED AIR FLOTATION

Dissolved air flotation (DAF) is a water treatment process that clarifies wastewaters (or other waters) by the removal of suspended matter such as oil or solids. The removal is achieved by dissolving air in the water or wastewater under pressure and then releasing the air at atmospheric pressure in a flotation tank basin. The released air forms tiny bubbles which adhere to the suspended matter causing the suspended matter to float to the surface of the water where it may then be removed by a skimming device.



<i>Model</i>	<i>Capacity</i>	<i>Dimensions(LWH)</i>
DAF-010	10m ³ /hr	3.5x2.7x2.4m
DAF-020	20m ³ /hr	5.7x3.2x2.4m
DAF-040	40m ³ /hr	7.7x3.6x2.5m
DAF-060	60m ³ /hr	9.5x3.8x2.5m
DAF-100	100m ³ /hr	11.7x4.2x2.5m
DAF-120	120m ³ /hr	12.5x4.4x2.5m

* More models are available for selection, contact our reps.

NORSEN Dissolved Air Flotation Plants are successfully operated for a wide variety of industrial and municipal applications, such as:

APPLICATIONS

- Slaughterhouses
- Meat processing and packing
- Fish processing
- Dairies
- Convenience food production
- Margarine production
- Oil and fat refineries
- Canneries
- Kitchens and canteens
- Fast food providers
- Soap works
- Cosmetics industry
- Textile industry
- Chemical industry
- Petrochemical industry
- Iron and steel industry
- Metal processing
- Galvanizing, electroplating
- Land remediation
- Waste management
- Municipal wastewater treatment



LAMELLA CLARIFIER

Lamella clarifier is a high efficient solid-liquid separation device equipped with a series of inclined plates with smaller footprint comparing with traditional sedimentation tank.



<i>Model</i>	<i>Capacity</i>	<i>Size</i>	<i>Sludge Scraper</i>
LCS-005	~5m ³ /hr	2600×1600×3400mm	0.55kW
LCS-010	~10m ³ /hr	3400×1800×3800mm	0.55kW
LCS-020	~20m ³ /hr	3400×2200×3800mm	0.55kW
LCS-040	~40m ³ /hr	4000×2800×3800mm	0.55kW*2
LCS-050	~50m ³ /hr	4700×2800×3800mm	0.55kW*2
LCS-060	~60m ³ /hr	4800×3000×3800mm	0.55kW*2
LCS-080	~80m ³ /hr	5100×3400×4000mm	0.55kW
LCS-090	~90m ³ /hr	6300×3000×4000mm	0.55kW*2
LCS-100	~100m ³ /hr	7100×3000×4000mm	0.55kW*2
LCS-110	~110m ³ /hr	7800×3000×4000mm	0.55kW*2
LCS-120	~120m ³ /hr	8300×3000×4000mm	0.55kW*2



YOUR BENEFITS

- Higher efficiency, smaller footprint: inclined plates extended to 1.5m, separation efficiency improved (higher 1.5 ~ 2.0 times) comparing with radial flow clarifier and vertical clarifier and save 80% of area.
- Excellent hydraulic conditions: no hydraulic corner and vortex, better precipitation effect .
- Inclined plates Chokeless: plates are of angle 60 degrees, spacing between 80 ~ 100 mm, adopt the back-washing device.
- Strong and durable: Inclined plates are breakless, collapseless. Adopt 6mm hard PVC board or 8 mm high quality PP board as special separation plate, module embedded installation, high strength, easy disassembling and maintenance.



SLUDGE DEWATERING FILTER AND BELT PRESS

PLATE FRAME FILTER PRESS

NORSEN's plate & frame filter press can be widely used in a huge variety of different applications, from sludge dewatering sections of municipal WWTP, water treatment plant, to industrial solid liquid separation occasions, etc..This equipment which improves the plate frame structure of traditional filter press offers a plurality of integration advantages, such as low investment cost, high work efficiency.

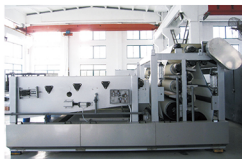
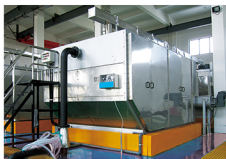


<i>Model</i>	<i>Filter Area</i>	<i>Filter Volume</i>	<i>Size</i>	<i>Power</i>
FP-60/1000	60m ²	900L	4900×1650×1400mm	4.0kW
FP-80/1000	80m ²	1200L	5620×1650×1400mm	4.0kW
FP-100/1000	100m ²	1500L	6300×1650×1400mm	4.0kW
FP-120/1000	120m ²	1800L	7000×1650×1400mm	4.0kW
FP-150/1250	150m ²	2250L	7800×2800×3200mm	5.5kW
FP-200/1250	200m ²	3000L	9200×2800×3200mm	5.5kW
FP-250/1500	250m ²	4380L	9000×3400×3400mm	8.0kW
FP-300/1000	300m ²	5350L	10000×3400×3400mm	8.0kW
FP-350/1250	350m ²	6130L	11000×3400×3400mm	8.0kW



BELT FILTER PRESS

NORSEN's belt filter press is an industrial machine, used for solid/liquid separation processes, particularly the dewatering of sludge in the chemical industry, mining, food processing and water treatment. The process of filtration is primarily obtained by passing a pair of filtering belts through a system of rollers. The system takes a sludge as a feed, and separates it into a filtrate and a solid cake.



<i>Model</i>	<i>Belt Width</i>	<i>Capacity</i>	<i>Size</i>	<i>Power</i>
BPD-1000	1000mm	5~10m ³ /hr	5340×1850×2330mm	1.85kW
BPD-1500	1500mm	10~15m ³ /hr	5340×2350×2330mm	2.25kW
BPD-2000	2000mm	15~20m ³ /hr	5340×2850×2330mm	2.95kW
BDP-2500	2500mm	20~30m ³ /hr	5340×3400×2330mm	3.30kW
BDP-3000	3000mm	30~40m ³ /hr	5340×3900×2330mm	4.10kW

YOUR BENEFITS

a) High adaptability

No need to adjust the motor drive, able to adjust the speed at any time, high adaptability.

b) Smart Design

Tailor-made washing nozzle and anti-clogging device, making the filter belt rinse.

c) High efficient

The dehydrating head stick applies the T- sluicing sink, rapid outflow of pressed water; gravity dehydration section uses inclined design, sludge hydrostatic head enlarges, which can enhance the effects of dehydration.

d) Ensure fully thickening of the sludge before being pressed.

e) Compact structure, filter with automatic correction, low running noise, save power consumption, less medication, good dehydration effects and with low operating costs.



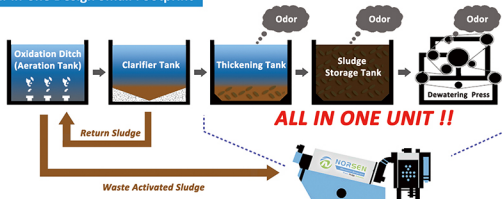
SLUDGE DEWATERING MULTI DISC SCREW PRESS

MULTI DISC SCREW PRESS

NORSEN's sludge dewatering press equipped with multi-disc screw press technology. Dewatering with an automatic self-cleaning filter mesh enables stable constant dewatering without the need for flush water to prevent clogging. It has solved several technical problems of other similar sludge dewatering equipment including belt presses, centrifuge machines, plate-and-frame filter press have, which are frequent clogging, oil sludge treatment failure, high energy consumption and complicated operation etc.



All-in-one Design Small Footprint

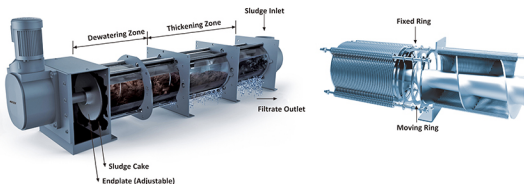


ES Series



Unique Clog Free Structure

NORSEN's 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 transfer.



Clog Free



Low Concentration



Various Apps.



Small Footprint



Easy Operation



Expandable



Energy Saving



Low Noise



Reliable



Global Installations

Good at oily sludge
clog-free design
clean gap by itself

Thin SS available
Direct dewater from
oxidation ditch

Like WWTP, food
industry, paper,
chemical, etc.

Small Size
Wide line-up array
Compact & Smart

Simple control
Easy maintenance
Automatic running

Adjustable
From small to large
1-500 DS-kg/hr

Energy friendly
Water Saving &
Low Power Cost

Low Speed
60 DB only
Like normal talking

2 years warranty
Instant after-sale
service

Proven technology
Installed all over
the world

Model	Specifications	Capacity	DS Capacity	Size	Power
ES-101	100mm screw, 1 cylinder	0.2~1.0m ³ /hr	5kg/hr	1883×760×1145mm	0.2kW
ES-131	130mm screw, 1 cylinder	0.4~2.0m ³ /hr	10kg/hr	1883×760×1145mm	0.2kW
ES-132	130mm screw, 2 cylinders	0.8~4.0m ³ /hr	20kg/hr	1983×910×1145mm	0.3kW
ES-201	200mm screw, 1 cylinder	0.8~4.0m ³ /hr	20kg/hr	2440×855×1265mm	0.4kW
ES-202	200mm screw, 2 cylinders	1.6~8.0m ³ /hr	40kg/hr	2535×935×1265mm	0.8kW
ES-301	300mm screw, 1 cylinder	2.0~10m ³ /hr	50kg/hr	3200×985×1570mm	0.8kW
ES-302	300mm screw, 2 cylinders	4.0~20m ³ /hr	100kg/hr	3340×1295×1570mm	1.2kW
ES-303	300mm screw, 3 cylinders	6.0~30m ³ /hr	150kg/hr	3500×1580×1570mm	1.95kW
ES-351	350mm screw, 1 cylinder	4.0~20m ³ /hr	100kg/hr	3950×1090×2150mm	2.25kW
ES-352	350mm screw, 2 cylinders	8.0~40m ³ /hr	200kg/hr	4050×1550×2150mm	3.75kW
ES-353	350mm screw, 3 cylinders	12~60m ³ /hr	300kg/hr	4300×2100×2150mm	6.0kW
ES-401	400mm screw, 1 cylinder	7.0~35m ³ /hr	180kg/hr	4350×1260×2350mm	3.0kW
ES-402	400mm screw, 2 cylinders	14~70m ³ /hr	360kg/hr	4500×1710×2350mm	4.5kW
ES-403	400mm screw, 3 cylinders	21~105m ³ /hr	540kg/hr	4900×2340×2350mm	6.7kW

* Includes polymer floc tank and mixer system. Multiple options available upon request.

* Single cylinder (ES) models for improved performance and longevity. For modular expansion, add required number of cylinders. With base. One floc tank recommended for up to 3 cylinders.



MOBILE SLUDGE DEWATERING SYSTEM

MOBILE SLUDGE DEWATERING SYSTEM

In stationary dewatering systems, for example, the construction of a new building or the expansion of existing space can be significantly costly. Container-based solutions are therefore a practical alternative to fixed dewatering installations or thickening systems. A container is a true "plug and play" option – just connect it and start dewatering. Mobile 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. Fully mobile use is also possible at any time



Custom Container Solutions

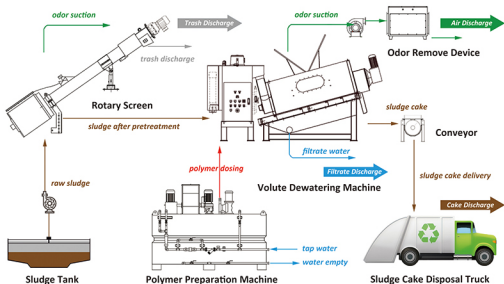
Mobile container systems are available in a wide variety of sizes and infrastructure variants:

- a) 20' 40' containers, Simple Transport Due to Platform Design
- b) Sludge Dewatering in One-Man Operation
- c) Minimized Maintenance Effort
- d) Optimized for Operation in Tight Spaces
- e) Longer Lifetime Due to Use of High-Quality Stainless Steel



Smart Treatment Design

NORSEN's unique dewatering and separation technologies makes the mobile dewatering design space much more smaller footprint and due to low power consumption & water consumption, a power generator can be easily equipped in the container and make the applications more widely used in different sludge management and treatment cases.



* Includes polymer flocc tank and mixer system, pumps, pretreatment system, generator, odor control system available upon request.

* Please contact our reps. for more details and make a suitable custom-design unit upon your right requests.



GET MORE FROM YOUR MACHINE WITH FULL OPTIMIZATION OF THE DEWATERING AND SEPARATION PROCESS

As the leading separation specialist in China, we understand that no challenge starts or ends with a single machine. By taking a closer look at your entire process, we can apply the knowledge of more than 1,000 separation projects and the technical capabilities of one of the world's broadest and innovative technologies. Whether it's upstream or downstream, add-ons or automation, we have in-depth process know-how and resources around the world to further optimize your entire dewatering and separation process.

