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CLEAN & GREEN SYSTEM

DONGJIN

Industrial Machinery

Protector of Global Environment



 **동진기공**
Protector of Global Environment

CLEAN & GREEN SYSTEM

Dongjin Industrial Machinery Company

Greeting



Founded in 1987, Dongjin Industrial Machinery Company has become Korea's leading manufacturer of wastewater treatment systems for municipal and industrial applications. Dongjin's mission is to produce our products with the highest quality and the most customer satisfaction. By adhering to our mission, we aim to clean and protect the global environment.

As the manufacturer of the Integrated Sludge Treatment Machine certified by Korean Public Procurement Service, we are always looking for new ways to provide the most effective, trustworthy and affordable solutions for wastewater treatment systems. Also, our persistent efforts in research and development of products are leading Dongjin to hold various patents for wastewater treatment and machines that employ those patents.

We offer a variety of wastewater treatment systems to resolve issues including:

- Municipal sewage
- Food wastewater
- Livestock wastewater

Our Sludge/Sewage Treatment Machine provides a moisture level of approximately 70%. We are widely recognized for our contributions in significantly reducing cost and improving Environment protection.

Dongjin is firmly committed to conduct our business under the precepts of the Golden Rule, only by serving our customer, as We would like to be served, we will be able to succeed. Therefore, we pledge to respond to customers' requests for information on product availability, pricing, and order status quickly and courteously, to resolve any inquiries promptly and to meet customers' technical requirements.

Dongjin wants to be your solution for wastewater treatment systems and is fully prepared to be a trustworthy and accountable provider to you.

CEO Dong seok Kang





Company History

- 1987. 01 – Establishment of Dongjin Industrial Machinery Co.
- 1987. 04 – Registered as bidder of the Public Procurement Service (local investment)
- 1988. 12 – Member of Korea Federation of Machinery Industry Cooperatives
- 1997. 07 – Acquired Construction License (Water and Sewage Facility)
- 1998. 04 – Registered in Quality Department of the Quality Management Center
- 1998. 05 – Appointed as a leading company of the VISION 21
(Small & Medium Business Administration)
- 1998. 12 – Acquired "ISO 9002" Certification
- 1999. 05 – Patented for sewage treatment device
- 1999. 05 – Awarded Excellence in the Korea Federation of Small & Medium Business
- 1999. 07 – Registered as bidder of the Public Procurement Service (facilities)
- 1999. 11 – Expansion of the factory (Noksan Industrial Zone)
- 2002. 01 – Acquired "ISO 9001" Certification
- 2005. 08 – Acquired Performance Certification
- 2005. 09 – Patented for Sewerage treatment device for human and livestock waste
- 2005. 12 – Acquired 'K' Mark Certification (Korea Testing Laboratory)
- 2006. 01 – New Products Approval Certificate NEP (Sludge Treatment Machine)
- 2006. 03 – Approved as Excellent Products – Public Procurement Service
(3 step-integrated Sludge Treatment Machine)
- 2006. 05 – Ministry of Commerce, Industry and Energy Commendation Reception
- 2008. 04 – Establishment of R&D exclusive Charge Team (Korea Industrial Technology Promotion)
- 2009. 01 – Patented for Sewerage treatment device
- 2009. 09 – Ministry of Knowledge Economy Commendation Reception
- 2009. 11 – Appointed Prominent Small & Medium Business Enterprise
- 2010. 02 – The Procurement Excellent Product Designation
(4 step-integrated Sludge Treatment Machine)
- 2011. 05 – Awarded Korean President Prize
- 2011. 01 – Expansion of the factory (Hwajeon Industrial Zone)
- 2012. 12 – Awarded Busan City Mayor Prize
- 2012. 04 – Patented for Sewerage treatment device
- 2013. 01 – Selected as a Technical Innovative Small & Medium Company (INNO-BIZ) Selection
- 2013. 01 – Acquired Performance Certification
(Small & Medium Business Administration) – Sludge Treatment Machine
- 2013. 03 – Acquired Certificate of Designation for an Excellent Company(Public Procurement Service)

Certificate

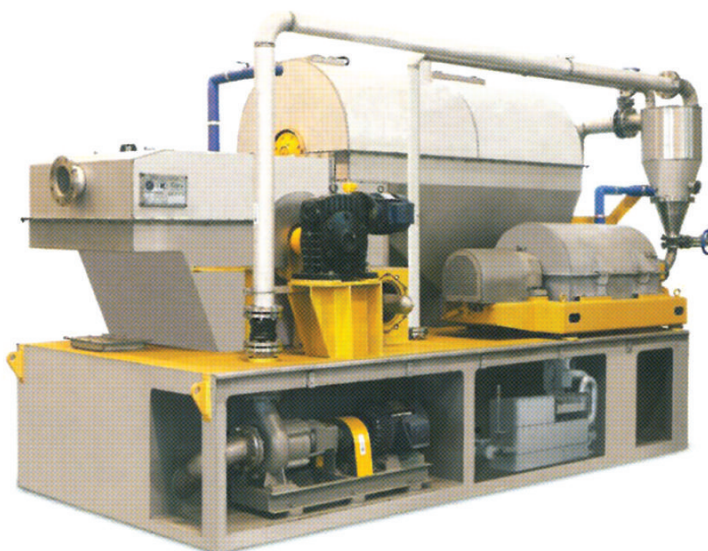




4-Step Integrated Sludge Treatment Machine (Deodorizer)

Structural Features

- ▶ 4-Step Integrated Processing (Rotary screen, double-layered filtration, centrifugal separator)
- ▶ Packaging system restricting odor at maximum
- ▶ Requires minimum installation space
- ▶ Selection among automatic, semi-automatic and manual operation
- ▶ Safety device installed in each step
- ▶ Perfectly remove small seeds, animal hair and grits by double-layered filtration
- ▶ Storage smoothly transfer settled sludge to next process
- ▶ Attached Drop Duck minimize Waste water leak and odor spread during waste water input
- ▶ Attached Heating tool on Screw Press improve moisture level of discharged sludge
- ▶ Attached Moving Water & Air Spray on Double-Layered Filtration clean clogged hole

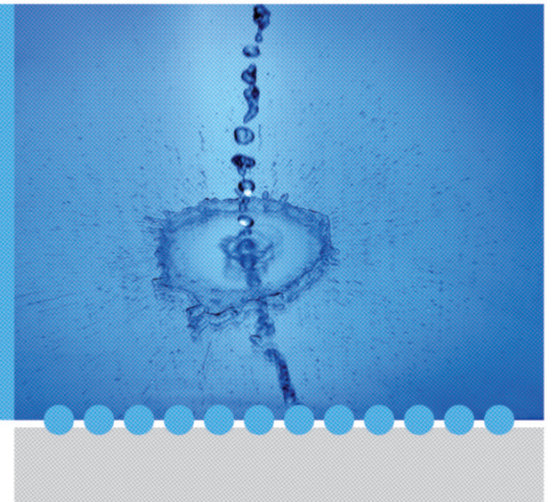


Specification

Model	Capacity	Main Motor	Dimension(mm)			Weight
			W	L	H	
DMT-50	50 m ³ /hr	29.5kW	2000	4140	2880	6000kg
DMT-100	100 m ³ /hr	35kW	2000	4250	2880	6500kg
DMT-150	150 m ³ /hr	44.5kW	2200	4400	2880	7000kg

The Procurement Excellent Product Designation (2009230) Performance Certification (12-157) K Mark (PB12005-034)

4-Step integrated sludge treatment machine treats human/livestock wastewater, carried by feces vehicle to waste-water treatment facility for pretreatment. 4-step including a rotary screen, double-layered filtration (two screens with 1.5mm wedge and Ø5 holes) and centrifugal separator (35 m3/hr) can filter large sludge, seeds, hair, animal hair and grits from carried waste-water. Attached deodorizer can safely removes odor produced in the machine during the process.



Waste-water Treatment Process

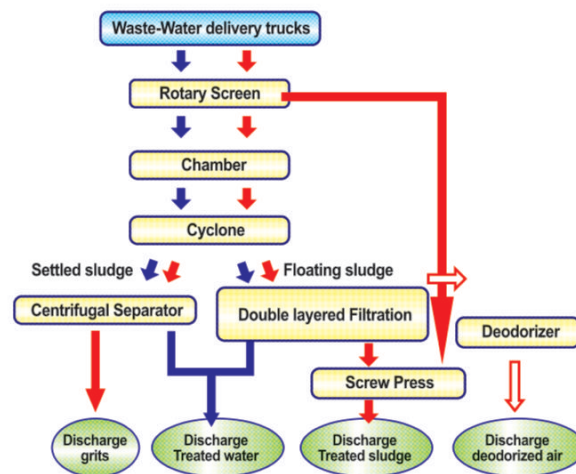
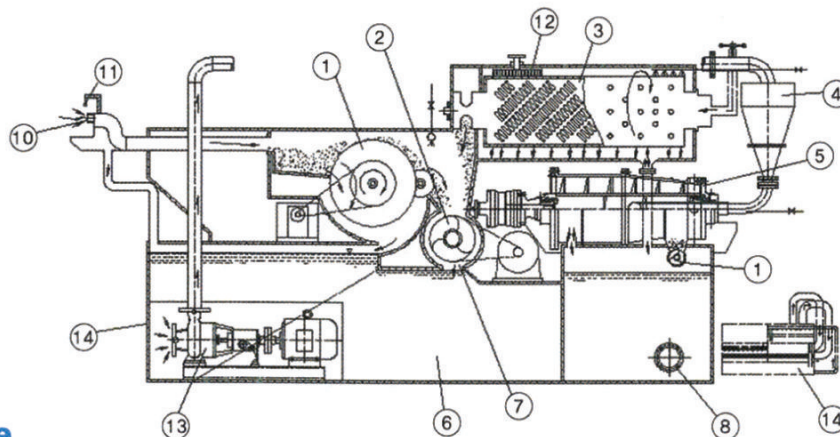


Diagram of Integrated Sludge Treatment Machine



Parts Name

- | | | |
|--|---------------------------------------|--------------------|
| ① Sludge Screen | ⑤ Centrifugal Separator | ⑩ Wastewater Drop |
| ② Screw Press | ⑥ Chamber | ⑪ Detecting sensor |
| ③ Double Layered Filtration
(1 st Step: Wedge Type, 2 nd Step: Hole Type) | ⑦ Outlet of sludge and seeds | ⑫ Cleaning brush |
| ④ Cyclone | ⑧ Outlet of treated water | ⑬ Transport pump |
| | ⑨ Outlet of fine impurities and grits | ⑭ Deodorizer |



Sewage Treatment Machine [Municipal Waste-water]

Dongjin's sludge treatment machine treats Municipal sewage (or food wastewater), carried by trucks (or influent channel).

Dewatering Decanter Centrifuges (Low RPM Type)

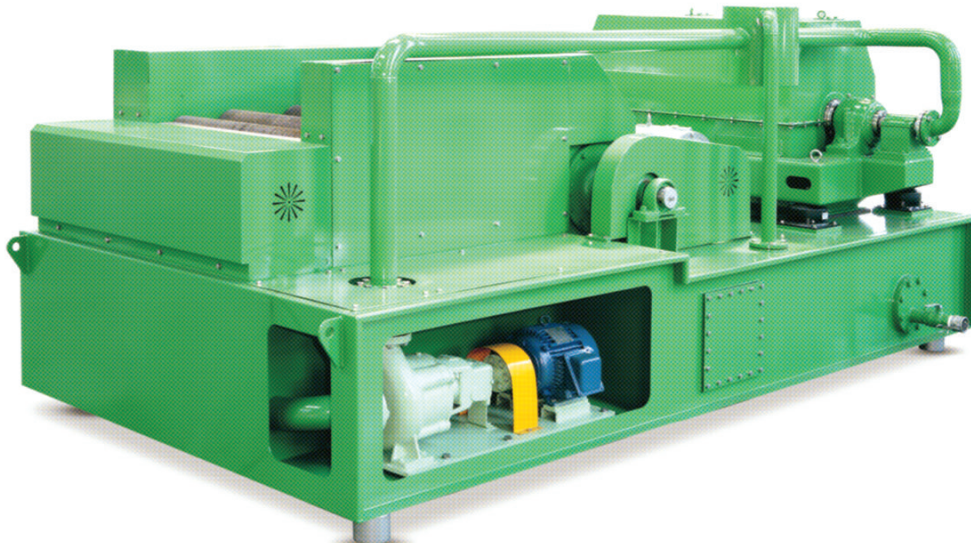


Disc Screen



Structural Features

- ▶ Simple type machine (2-Step Integrated Processing) for less maintenance
- ▶ Less operation cost from electricity efficiency
- ▶ Compact size for easy installation and minimum installation space
- ▶ Separate and dehydrate sewage using screw press
- ▶ High-pressure water spray and air remove clogging of holes in centrifugal separator

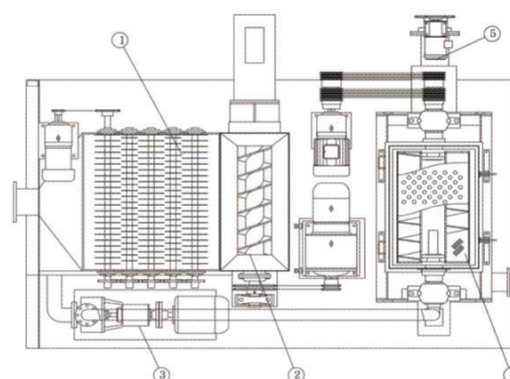
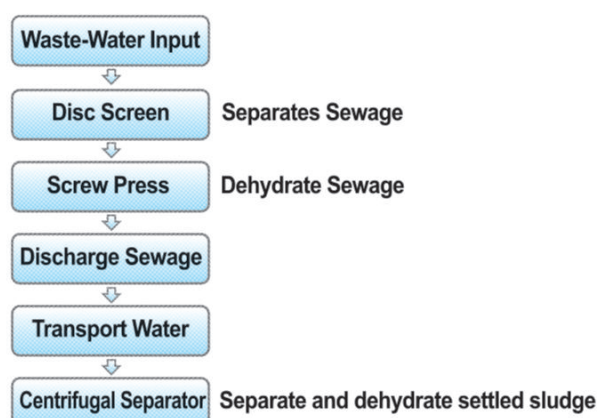


Invention Patent(10-1244211)

2-step including a disc screen and a compact centrifugal separator can filter large sludge, seeds, hair, animal hair and grits from carried waste-water. At the first step, the disc screen separates big sludge and discharge big sludge through screw press which can squeeze water out from sludge. Discharged water is transported to the centrifugal separator by pump then the centrifugal separator removes contained water from heavy sludge using centrifugal force.



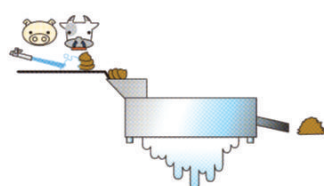
Sewage Treatment Processing Map



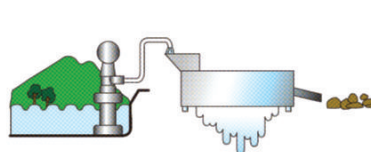
Parts Name

- | | |
|-------------------|-------------------------|
| ① Disc Screen | ④ Centrifugal Separator |
| ② Screw Press | ⑤ Conveyor |
| ③ Transport Motor | |

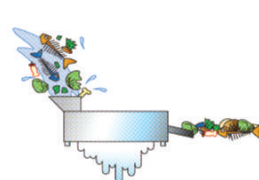
Purpose



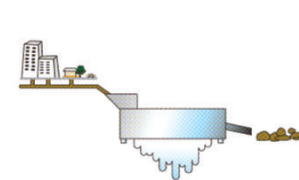
- Primary treatment of human (livestock) waster



- Water purification process of river or lake



- Food wastewater (especially Fish or Shellfish) treatment



- Primary treatment of small-medium size sewerage treatment plant

Specification

Model	Capacity	Dimension(mm)	Main Motor
DCMN-30	30 m ³ /hr	1800X3500X1300	11kW
DCMN-50	50 m ³ /hr	2000X4000X1500	13.5kW
DCMN-100	100 m ³ /hr	2000X4000X1800	15kW



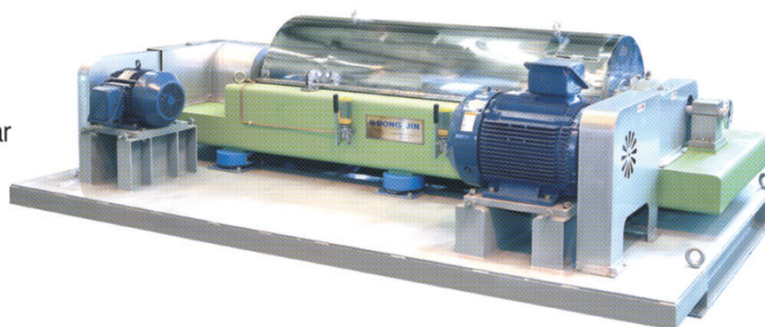
Dewatering Decanter Centrifuges

Utility Model (346578)

The Dewatering decanter centrifuge rapidly and wholly dewateres the fluid in the machine to make dried sludge, using centrifugal force. Excellent-performance facilities separating and treating fine sands and seeds in initial phase in treatment processing of waste water, night soil, impurities of septic tank and sewage water.

Structural Features

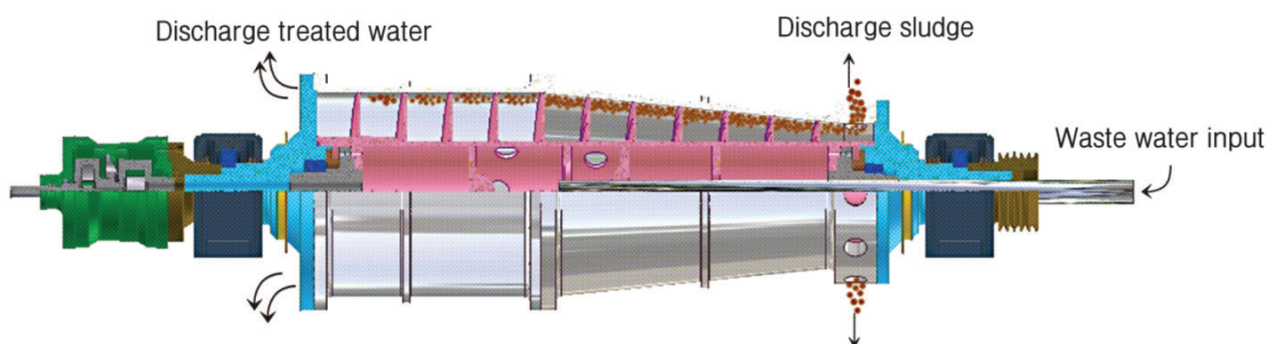
- ▶ Automatic operation with less noise
- ▶ Customization as per customers' needs
- ▶ Using special welding rod on screw wing for strong wear property and corrosion resistant



Specification

Model	Capacity	Power		Entery
		Main Motor	Second Motor	
DMIC-10L	5~10 m ³ /hr	22~37.5kW	5.5kW	50A
DMIC-35L	15~30 m ³ /hr	37~55kW	7.5kW	65A
DMIC-50L	30~50 m ³ /hr	55~60.5kW	11kW	65A

Dewatering Decanter Centrifuges process



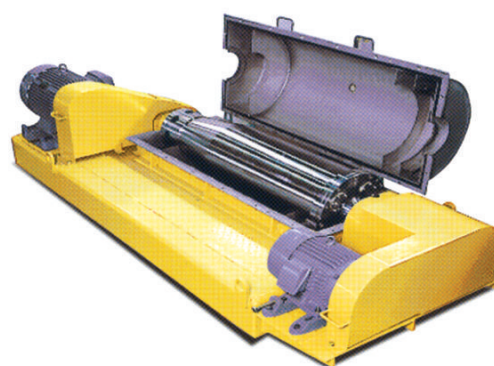
Thickening Decanter Centrifuges

It applies when the solids are in a poor condition because of extra sedimentation and the mixed sludge from livestock, night soil, and sewage treatment plants. Thickening decanter centrifuge concentrates the sludge to the optimum efficiency by causing the artificial specific gravity difference in the sludge, in comparison with the gravity thickening and the other method.



Structural Features

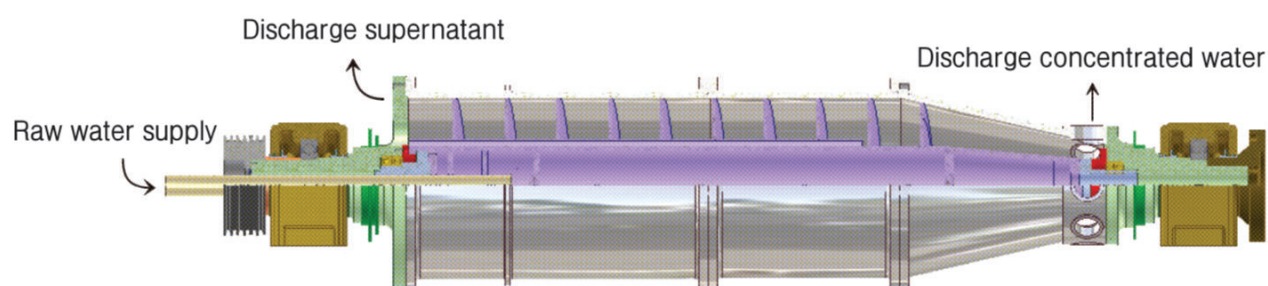
- ▶ Automatic oil circulating device cooling the oil temperature by bearing
- ▶ Automatic compact machine with low noise
- ▶ Customization as per customers' needs
- ▶ Adoption of wear-proof and corrosion-proof materials in edge party of screw wings
- ▶ Equipped automatic concentration control and safety device



Specification

Model	Capacity	Power		Entry
		Main Motor	Second Motor	
DMIC-10L	5~10 m ³ /hr	15~22kW	3.75kW	40A
DMIC-10L	15~30 m ³ /hr	22~37kW	6.5kW	50A
DMIC-10L	30~50 m ³ /hr	37~45kW	7.5kW	65A

Thickening Decanter Centrifuges process

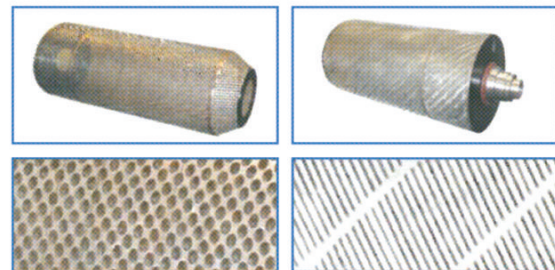




Drum Screen

Structural Features

- ▶ Perfect removal of foreign substance from waste water
- ▶ Filtration punching size : 1.5mm~4.0mm (Wedge type)
- ▶ Treating high concentration wastewater without clogging
- ▶ 1 day 24hrs, continuous operation
- ▶ Moisture level under 75% of discharged sludge



Application

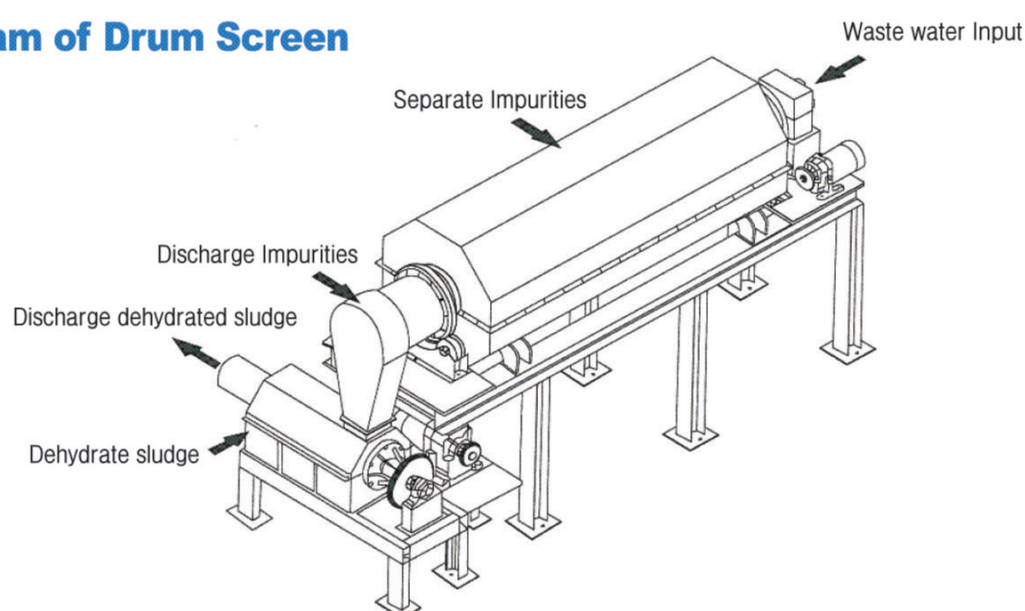
- ▶ Primary Treatment of poultry, butchery, fish processing wastewater
- ▶ Primary Treatment of vegetables, dairy products and other food waste
- ▶ Primary Treatment and initial screen process for urban water supply and drainage
- ▶ Removing impurities of waste water and remaining sludge

Utility Model(162956)

Dongjin's Drum Screen is a rotating drum screen built for waste water pretreatment applications. This machine has an internally Rotary Drum Screen with a pinion and rack driving system that will provide reliability while requiring minimal maintenance and operation. The collected sludge is discharged through the screen drum mouth.



Diagram of Drum Screen



Specification

Drum Screen for removing minor adulteration

Model	DSP-30 m ³ /hr		DSP-50 m ³ /hr		DSP-50 m ³ /hr	
Capacity	2~30 m ³ /hr		30~50 m ³ /hr		30~50 m ³ /hr	
Power	Screen	Screw Press	Screen	Screw Press	Screen	Screw Press
	11kW	7.5kW	3.75kW	7.5kW	3.75kW	7.5kW
Hole size (Filtration)	Ø2~Ø2.5mm		Ø2~Ø4mm		Ø2~Ø4mm	

Drum Screen for removing impurities from sludge

Model	DMT-10 m ³ /hr		DSP-20 m ³ /hr		DSP-30 m ³ /hr	
Capacity	2~10 m ³ /hr		10~10 m ³ /hr		20~30 m ³ /hr	
Power	Screen	Screw Press	Screen	Screw Press	Screen	Screw Press
	1.5kW	5.5kW	2.2kW	5.5kW	2.2kW	7.5kW
Hole size (Filtration)	Ø2~Ø2.5mm		Ø2~Ø2.5mm		Ø2~Ø3mm	



Rotary Screen

High performance filters for solid-liquid separation. Perfect for pretreatment of wastewater.

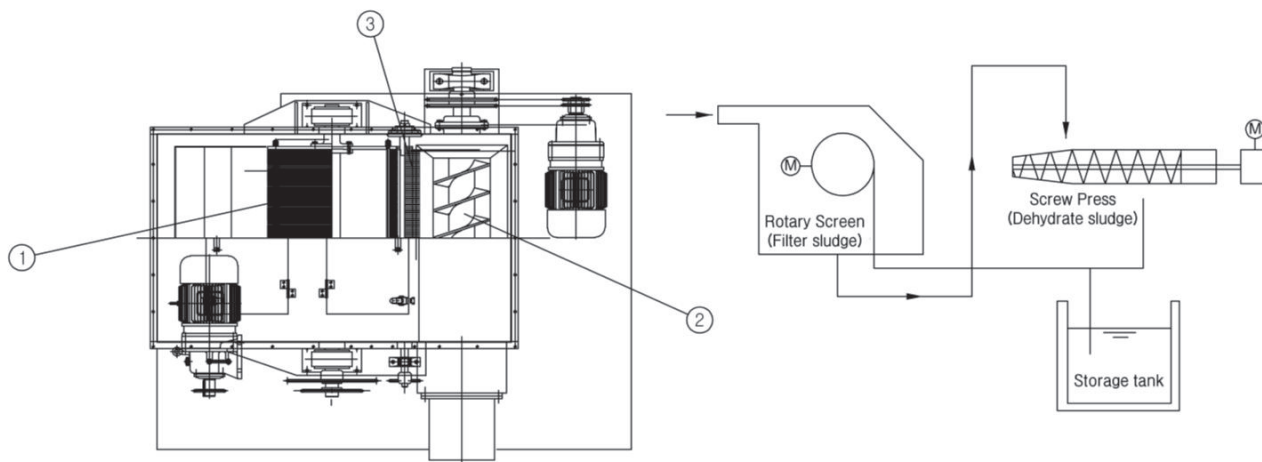
Structural Features

- ▶ Dongjin's Rotary Screen is pre-treatment polishing equipment in the process of removing solid-liquid waste through a rotary screen filter
- ▶ Removing the solids carried by the water in order to avoid obstructions and mechanical problems in the plant
- ▶ Stand-alone units with automatic drive operation.
- ▶ In municipal water they frequently permit replacement of primary clarifiers, providing elimination of coarse sand



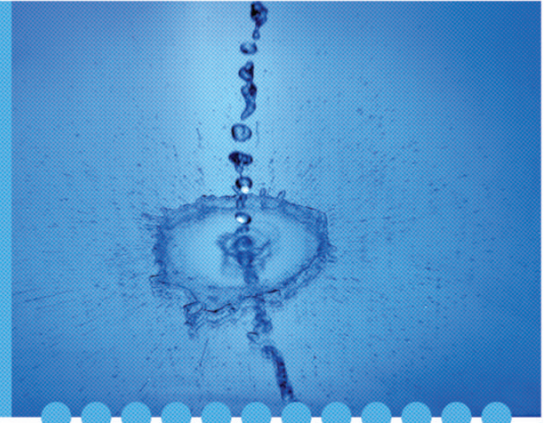
Specification

Model		DMT-50	DMT-100	DMT-150
Capacity (m ³ /HR)		50 m ³ /HR	100 m ³ /HR	150 m ³ /HR
Rotary Screen	Screen aperture	6mm	6mm	6mm
	Main Motor	3HP	5HP	5HP
Screw Press	Transfer Capacity	4~7 m ³ /HR	4~7 m ³ /HR	7~10 m ³ /HR
	Main Motor	10HP	10HP	10HP



Hopper (sludge, precipitate, cake) Conveyor (Screw, belt, air pressure)

After treating livestock, human waste and sewage,
Hopper is used to stored discharged sludge, precipitate and cake before loading

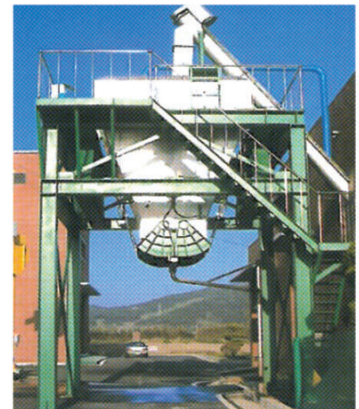


Hopper(sludge, precipitate, cake)

- ▶ Temporary storage of sludge, precipitate and cake (carried by conveyor) after treatment
- ▶ Easy operation from automatic opening and shutting and automatic scale

Hopper specification

Model	DMH-5	DMH-10	DMH-1400	DMH-1600
Capacity	5~8m³	10m³	15m³	20m³
Type	Electricity, Oil pressure	Electricity, Oil pressure	Electricity, Oil pressure	Electricity, Oil pressure
Main Motor	2.2kW	3.75kW	3.75kW	5.5kW



Conveyor(screw, belt, air-pressure conveyor)



Screw Conveyor



Belt Conveyor



Air-pressure Conveyor



Other Products



■ Deodorizer



■ Grit Pulling Machine



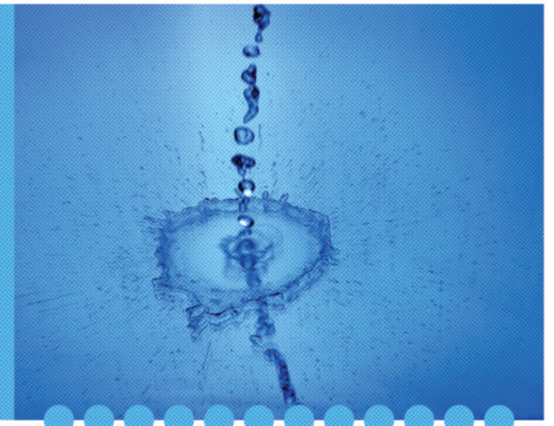
■ Automatic Dust collector



■ Sludge collector

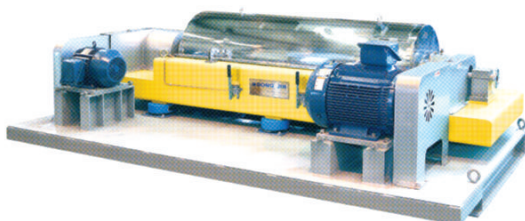


Dongjin Industrial Machinery Company



4-Step Integrated Sludge Treatment Machine (Deodorizer)

Sewage Treatment Machine Municipal Waste-water



Dewatering Decanter Centrifuges

Thickening Decanter Centrifuges



Rotary Screen

CLEAN & GREEN SYSTEM



Blue Sky · Clear Water · Clean World



동진기공
Protector of Global Environment

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