

Stacked screw sludge dewatering machine

Equipment overview

The screw-stacked sludge dewatering machine manufactured by our company uses the principle of screw extrusion, and produces a strong extrusion through the change of screw diameter and pitch.

The pressure and the tiny gap between the moving ring and the fixed ring realize a new type of solid-liquid separation equipment for extruding and dewatering sludge.

The stacked snail sludge dewatering machine integrates a fully automatic control cabinet, a flocculation conditioning tank, a sludge concentration and dehydration body and a liquid collection tank.

Under the condition of running, realize the flocculation in colleges and universities, and continuously complete the sludge concentration and pressing and dehydration work, and finally return or discharge the collected filtrate.

Application:

suitable for municipal sewage, petroleum refining, brewing and tanning, printing, dyeing and papermaking, coal chemical beneficiation, biochemical pharmacy, steel pickling, food Sugar, etc.

Product advantages:

1. Low operating cost: less than 40% equivalent to a belt filter press and less than 20% equivalent to a centrifugal dehydrator.

- 2. Power saving: less than centrifuge 5%.
- 3. Water saving: less than 0.1% of the belt filter press.
- 4. Drug saving: The average drug saving is 60%.
- 5. Small size: low investment in dehydration room more than 60%.
- 6. The nemesis of oily and fibrous sludge.





Working principle

When the equipment is running, the sludge enters the filter cartridge from the feed port and is pushed by the screw shaft blades and moves to the discharge port.

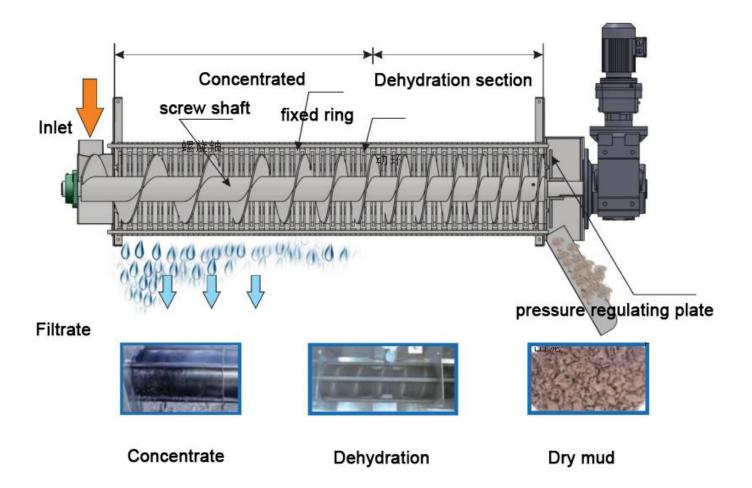
The pitch of the sludge gradually shrinks, so the pressure on the sludge also increases continuously, and begins to dehydrate under the action of the pressure difference, and the



water flows from the passage between the fixed ring and the moving ring.

The filter gap flows out, and the equipment relies on the self-cleaning function between the moving ring and the fixed ring to clean the filter gap to prevent clogging, and the mud cake is fully dehydrated

Then, it is discharged from the discharge port under the propulsion of the screw shaft.





Main feature

◎ Simple process flow, high efficiency and energy saving in sludge dewatering, and small system investment

© The system can be programmed to make the operation convenient and accurate

OUnique flocculation agent makes sludge easier to dewater

OUniform and accurate dispensing, saving running costs

Technical advantages

The dynamic fixed ring replaces the filter cloth, self-cleaning, no clogging,

easy to deal with oily sludge

Under the action of the rotation of the screw shaft, the moving ring moves continuously relative to the fixed ring, thus realizing the continuous self-cleaning process and avoiding the common clogging problem of traditional dewatering machines. Therefore, it has strong resistance to oily sludge, is easy to separate and does not block. and without external Add water for high-pressure washing, clean and environmentally friendly, no odor, no secondary pollution.

Low speed operation, no noise, low energy consumption, only 1/8 of the

belt machine and 1/20 of the centrifuge.

The stacked screw sludge dewatering machine relies on the internal pressure of the volume for dewatering, without the need for large bodies such as drums, and the running speed is low, only 2-4 rpm, so water saving, energy saving, low noise, and the average energy consumption of the belt machine 1/8 of the centrifuge and 1/20 of the centrifuge, its unit power consumption is only 0.01-0.1kwh/kg-DS, which can reduce the operating cost of the sewage treatment system.

Reduce infrastructure investment costs and improve treatment effects

The stacked screw type sludge dewatering machine can directly process the sludge in the aeration tank and the secondary sedimentation tank, without the need to set up a sludge



thickening tank and a sludge storage tank, so it can reduce the overall investment cost of infrastructure and avoid the release of phosphorus in the traditional sludge thickening tank. problem, improve the dephosphorization function of the sewage treatment system.

© Saving the investment in civil construction of structures such as concentration pools and the investment in supporting equipment such as mixers, air compressors, and flushing pumps

©The equipment occupies a small area, which reduces the investment in the civil construction of the dewatering machine room.

Fully automatic control, simple operation and management

The screw-type sludge dewatering machine has no filter cloth, filter holes and other easily blocked components, and the operation is safe and simple. Fully automatic unattended.









Selection reference

Model		Sludge concentration after A/O			
污泥浓度(TS)	0.2%	1%	2%	5%	3%
SKDL131	~4kg-DS/h	~6kg-DS/h	~10kg-DS/h	~20kg-DS/h	~26kg-DS/h
	(~2.0m ³ /h)	(~0.6m³/h)	(~0.5m³/h)	(~0.4m³/h)	(~0.87m³/h)
SKDL132	~ 8kg-DS/h	~ 12kg-DS/h	~20kg-DS/h	~40kg-DS/h	~ 52kg-DS/h
	(~4.0m³/h)	(~1.2m³/h)	(~1.0m³/h)	(~0.8m³/h)	(~1.73m³/h)
SKDL251	~ 8kg-DS/h	~ 12kg-DS/h	~20kg-DS/h	~40kg-DS/h	~ 52kg-DS/h
	(~4.0m ³ /h)	(~1.2m³/h)	(~1.0m³/h)	(~0.8m³/h)	(~1.73m ³ /h)
SKDL252	~ 16kg-DS/h	~24kg-DS/h	~40kg-DS/h	~80kg-DS/h	~ 104kg-DS/h
	(~8.0m³/h)	(~2.4m³/h)	(~2.0m³/h)	(~1.6m³/h)	(~ 3.47m ³/h)
SKDL301	~20kg-DS/h	~ 30kg-DS/h	~ 50kg-DS/h	~ 100kg-DS/h	~ 130kg-DS/h
	(~10m ³ /h)	(~3.0m ³ /h)	(~2.5m ³ /h)	(~2.0m ³ /h)	(~4.33m ³ /h)
SKDL302	~40kg-DS/h	~60kg-DS/h	~ 100kg-DS/h	~ 200kg-DS/h	~260kg-DS/h
	(~20m ³ /h)	(~6.0m ³ /h)	(~5.0m³/h)	(~4.0m³/h)	(~8.67m ³ /h)
SKDL303	~60kg-DS/h	~90kg-DS/h	~ 150kg-DS/h	~ 300kg-DS/h	~ 390kg-DS/h
	(~30m ³ /h)	(~9.0m ³ /h)	(~7.5m ³ /h)	(~6.0m ³ /h)	(~ 13m ³/h)
SKDL351	~40kg-DS/h	~60kg-DS/h	~ 100kg-DS/h	~200kg-DS/h	~260kg-DS/h
	(~20m ³ /h)	(~6.0m³/h)	(~5.0m³/h)	(~4.0m ³ /h)	(~8.67m ³ /h)
SKDL352	~80kg-DS/h	~ 120kg-DS/h	~ 200kg-DS/h	~400kg-DS/h	~ 520kg-DS/h
	(~40m ³ /h)	(~ 12m ³ /h)	(~10m ³ /h)	(~8.0m³/h)	(~17.3m ³ /h)
SKDL353	~ 120kg-DS/h	~ 180kg-DS/h	~ 300kg-DS/h	~ 600kg-DS/h	~ 780kg-DS/h
	(~60m ³ /h)	(~18m³/h)	(~15m ³ /h)	(~ 12m ³ /h)	(~ 26m ³/h)
SKDL401	~ 66 kg - DS/h	~ 100kg - DS/h	~ 170kg - DS/h	~ 34 0kg - DS/h	~ 442 kg - DS/h
	(~ 33m³/h)	(~ 10m ³ /h)	(~8.5m³/h)	(~6.8m³/h)	(~ 15m³/h)
SKDL402	~ 135kg -DS/h	~ 200kg - DS/h	~ 340kg -DS/h	~ 680kg -DS/h	~ 884kg - DS/h
	(~67.5m³/h)	(~ 20m³/h)	(~ 17m³/h)	(~ 13.6m ³/h)	(~29.5m³/h)
SKDL403	~ 200kg -DS/h	~ 300kg -DS/h	~ 510kg -DS/h	~ 1020kg -DS/h	~ 1326kg -DS/h
	(~ 100m ³ /h)	(~ 30m ³ /h)	(~25.5m ³ /h)	(~20.4m ³ /h)	(~ 44.2m ³/h)
SKDL404	~ 266kg - DS/h	~ 400kg - DS/h	~ 680 kg - DS/h	~ 1360kg - DS/h	~ 1768kg -DS/h
	(~ 133m ³/h)	(~ 40m ³/h)	(~ 34m ³/h)	(~27.2m ³ /h)	(~ 58.9m ³/h)



Standard sizes

Model	Screw shaft size	Distance from mud outlet to ground	Mechanical Dimensions			Woight	Running
			ΨL	宽W	高H	Weight	Weight
SKDL131	Φ130	570	2400	700	1500	220	320
SKDL132	Φ130	570	2400	1200	1500	360	530
SKDL251	Φ200	620	3000	800	1500	480	600
SKDL252	Φ200	620	3000	1400	1500	810	1050
SKDL301	Φ250	680	3500	900	1600	820	1230
SKDL302	Φ250	680	3500	1500	1600	1350	2050
SKDL303	Φ250	700	3500	1800	1600	1820	2810
SKDL351	Φ300	680	3800	850	1800	920	1330
SKDL352	Φ300	680	3800	1300	1800	1720	2540
SKDL353	Ф300	700	3800	2000	1800	2520	3750
SKDL401	Φ250	700	4800	1000	2100	1820	2810
SKDL402	Φ300	680	4800	1700	2100	920	1330
SKDL403	Φ300	680	4800	2500	2100	1720	2540
SKDL404	Φ300	700	4800	3000	2100	2520	3750

Adaptation system

Automatic dosing device:

accurate metering of equipment, saving pharmaceuticals and reducing operating costs

Sludge conveying equipment:

shaftless screw conveyor, smooth material conveying, low noise and low energy consumption

Sludge pump products:

submersible sewage pump, screw pump, metering pump and other pump equipment, safe and reliable operation

Flocculant product:

The supporting flocculant has the advantages of remarkable flocculation effect, non-toxic and tasteless, no secondary pollution, etc.



• OUR COMPANY



WELCOME TO VISIT US

QINGDAO YIHUA ENVIRONMENTAL PROTECTION CO., LTD.

is located in Qingdao, China, specializing in the purification and improvement of sewage and atmospheric environment, with excellent professional technology research and development, equipment manufacturing and construction personnel team. The company adopts 5S management mode, integrating design, manufacturing and integration, which effectively guarantees the stable supply capacity. Since its establishment, the company has established strategic cooperative relations with the United States, Germany, Japan, South Korea and Taiwan and other international well-known enterprises, and a number of well-known universities and research institutions in China to carry out research and development work.

Main products: Lamella Clarifier, Domestic sewage treatment equipment, CPI, DAF, Air flotation precipitation integrated machine, Incinerator, Various dust collector, Shot blasting machine, etc.

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o CERTIFICATION

The company adopts 5S management mode, integrating design, manufacturing and integration, which effectively guarantees the stable supply capacity.













• EXHIBITION



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