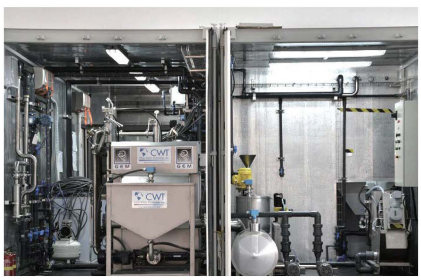
Provide complete wastewater treatment solutions worldwide.

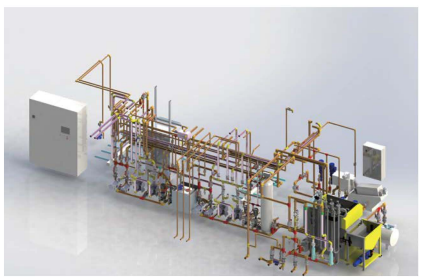
Advanced Sludge Dewatering Device

Swingmill® DEWATERING SCREW PRESS

2020



Highly integrated



Cutting edge design

Easy to install

Sludge condition

Concentration fluctuations

Sticky

Fluffy

Easy to solidify

Large inorganic composition

High proportion

Many kinds of medication

Long flocculation

Choose flocculation method

Choose dehydrated method

Oiled

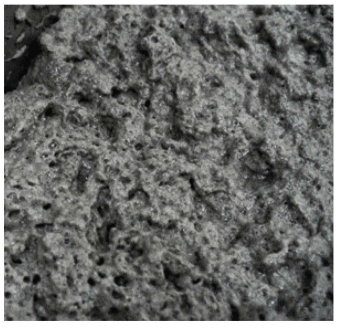
Sand

Fiber-containing

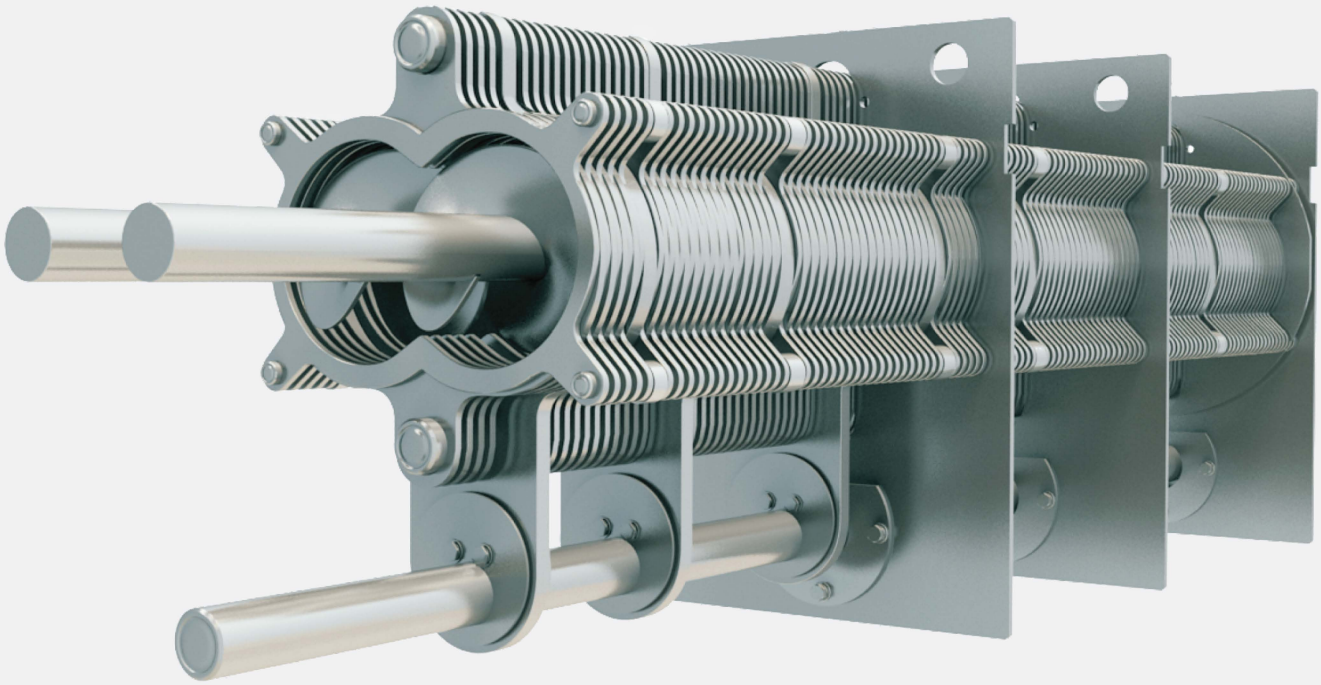
The concentration is too high

The concentration is too low

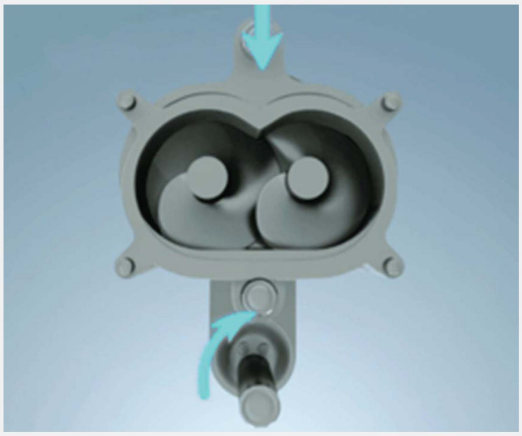
?



Swingmill®

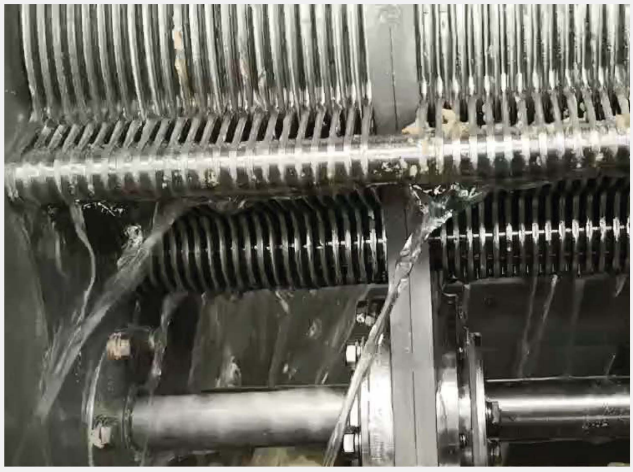


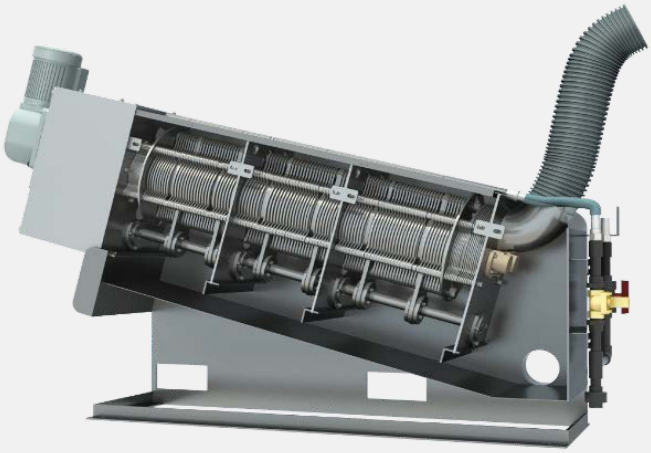
- Used for thickening and dewatering sludge.
- Sludge enters at the rear while twin screws rotate simultaneously to push the sludge forward.
- Spacer rings and plates move concentrically to automatically squeeze filtrate while self-cleaning.
- External action avoids obstructions.
- Creates a sludge cake which is discharged at the end of the cylinder.
- External drive rods create a vertical motion with a pendulum movement allowing the rings to cut though gaps without making contact.
- Adapts to a wide range of applications.
- Double the capacity of other presses.



Unique Mechanism

- External transmission bars create dual movements (rectilinear and pendulum).
- Movement reduces moisture content of sludge cake better than other mechanisms.





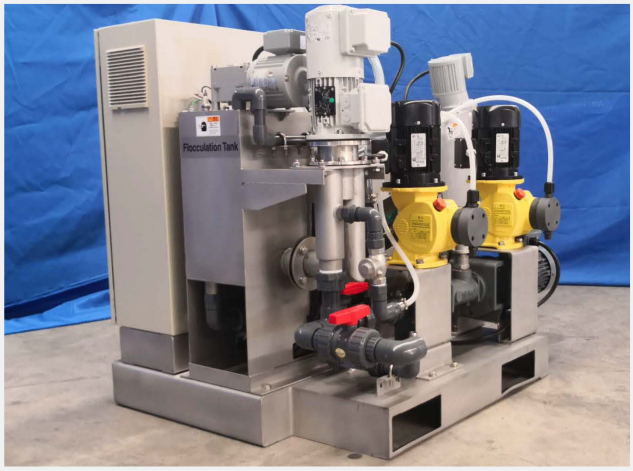
Benefits

Reductions compared to other presses

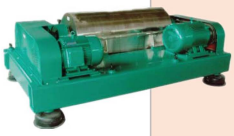
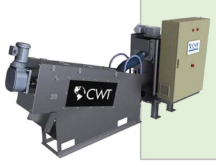
- Reduced energy costs (~50%).
- Less (~20%) polymer consumption, if needed.
- Reduced cleaning & maintenance.
- Smaller footprint.
- Decreased odor.
- Minimal noise.

Performance

- Durable.
- Fixed ring & moving ring mechanism.
- Better de-watering through duo-movement.
- Secure casing enclosure.
- No clogging or deformation.
- Programmable (fully automatic) - 24 hours of operation without operator oversight.
- Reduced moisture (drier sludge).



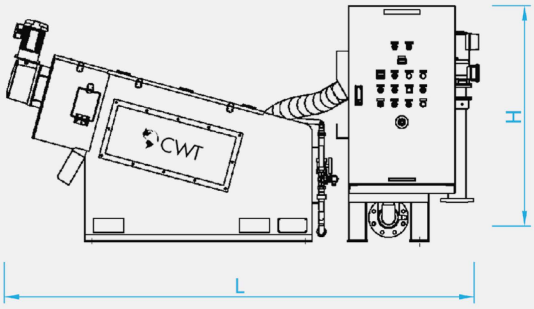
Performance Comparison

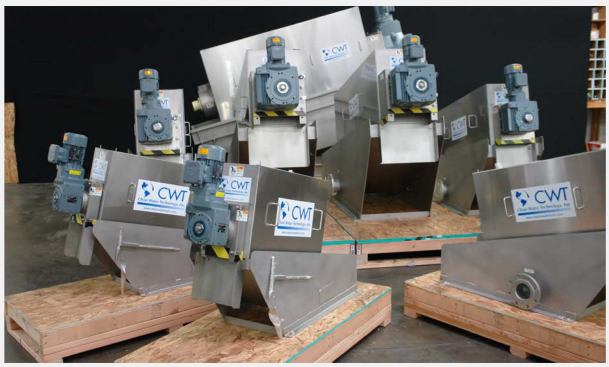
Key indicators of dehydration	Dry sludge / tight and smooth cavity		Purified filtrate / fine and smooth filter slits	
device	Implementation	Disadvantages	Implementation	Disadvantages
 Plate frame	Disassemble and disassemble components regularly to remove slag	Intermittent discontinuous operation	High pressure washing filter cloth	Easy to block, consume water, increase internal circulation burden
 Belt	Roller drives filter belt to transport sludge	It is easy to appear the deviation position of the filter belt	High pressure washing filter cloth	Easy to block, consume water, increase internal circulation burden
 Centrifuge	Sludge is transported by the speed difference between high-speed spiral shaft and low-speed drum	Power consumption, vibration, noise, high failure rate	High-speed rotation of the screw shaft generates centrifugal force	Power consumption, vibration, noise, high failure rate
 Screw pressure	Single screw shaft to transport sludge	Not suitable for sludge that is easy to compact, wind, hold shaft, stick shaft	High-pressure washing screen cylinder	Easy to block, consume water, increase internal circulation burden
 Spinning	Use the friction generated by the filter screen of the filter turntable to push the sludge	Easy to wear the scraper, also relatively easy to wear the filter	Filter turntable with screen hole, use scraper and high-pressure water to ensure smooth filter seam	Viscous sludge is easy to block, and the filtration efficiency is low
 DSP	Single screw shaft to transport sludge	Not suitable for sludge that is easy to compact, wind, hold shaft, stick shaft	The spiral shaft directly drives the traveling ring	Prone to deformation, wear, failure and future replacement
 Swingmill	**Sludge transport with double helix shaft**	**almost none**	**External drive travel ring**	**almost none**

Running Cost Comparison

Compare items	device	 Swingmill	 DSP	 Plate frame	 Belt	 Centrifuge	 Screw pressure	 Spinning
Model		DSM-701-S	SP-402-S	*160/1250-30U	*750	*400	*-3.3	*0902
Equipment investment costs (RMB)		0	0	0	0	0	0	0
Amount of mud per unit time (h)		10	10	10	10	10	10	10
Sludge concentration (%)		0.03	0.03	0.03	0.03	0.03	0.03	0.03
DS processing (kg/h)		300	300	300	300	300	300	300
PAC Dosing Rate (%)		0	0	0	0	0	0	0
PAC unit price (RMB/kg)		2	2	2	2	2	2	2
Ucculite addrate (%)		0.0048	0.006	0.006	0.006	0.006	0.006	0.006
Cocgulin unit price (RMB/kg)		30	30	30	30	30	30	30
Electricity consumption (kW.h)		2.27	4.5	5.5	8.6	24	4.4	11
Unit price of electricity (RMB/kW.h)		0.7	0.7	0.7	0.7	0.7	0.7	0.7
Water consumption (L/h)		192	340	1500	2500	500	100	100
Water unit price (RMB/tonne)		2	2	2	2	2	2	2
Maintenance time (h/h)		0.15	0.3	0.5	0.3	0.3	0.3	0.3
Labor costs (RMB/h)		20	20	20	20	20	20	20
Consumables 1 unit price (RMB/Piece)			33600	11200	7500	40000	300000	7500
Consumables 1 replacement quantity (Piece)			2 (Helix)	1 (Filter)	1 (Filter)	1 (Grille)	2 (Grille)	4 (Filter)
Consumables 1 service life (h)			20000	1500	2000	15000	15000	10000
Consumables 2 unit price (RMB/Piece)			84					750
Consumables 2 replacement quantity (Piece)			682 (Active Ring)					2 (Scraper)
Consumables 2 service life (h)			7000					10000
When the amount of dry sludge is treated (kg-DS)	Flocculant cost	43.2	54	54	54	54	54	54
	Electricity cost	1.6	3.2	3.9	6	16.8	3.1	7.7
	Water cost	0.4	0.7	3	5	1	0.2	0.2
	Labor cost	3	6	10	6	6	6	6
	Consumables 1 replacement cost	0	3.4	7.5	3.8	2.7	40	3
	Wearing parts 2 replacement cost	0	8.2	0	0	0	0	0.2
300	Total operating cost (RMB)	48.2	75.4	78.3	74.8	80.5	103.3	71.1

Specifications





Model	Reference processing capacity	General processing capacity	Potential processing capacity	Size (mm)			Power consumption (kW)				Weight (kg)	
				Length	Width	Height	Pipeline coagulator	Mixing tank	Swingmill body	Total	No-load	Load
DSM-121-S	~2	~4	~10	1208	885	1100	0.18	0.1	0.1	0.38	265	285
DSM-241-S	~12	~20	~50	2653	1039	1320	0.37	0.4	0.2	0.97	527	722
DSM-242-S	~24	~40	~100	2653	1039	1320	0.37	0.4	0.4	1.17	864	1099
DSM-341-S	~24	~40	~100	3145	1109	1424	0.37	0.4	0.2	0.97	801	1101
DSM-342-S	~48	~80	~200	3145	1180	1424	0.37	0.4	0.4	1.17	1374	1764
DSM-501-S	~60	~100	~250	3866	1222	1800	0.37	0.4	0.37	1.14	1403	2053
DSM-502-S	~120	~200	~500	3866	1570	1800	0.37	0.4	0.74	1.51	2560	3470
DSM-601-S	~120	~200	~500	4508	1522	2134	0.37	0.4	1.1	1.87	2225	3270
DSM-602-S	~240	~400	~1000	4508	1850	2134	0.37	0.4	2.2	2.97	4174	5604
DSM-701-S	~180	~300	~750	4994	1522	2515	0.37	0.4	1.5	2.27	2828	4008
DSM-702-S	~360	~600	~1500	4994	2020	2515	0.37	0.4	3	3.77	5380	7080
DSM-241-D	~12	~20	~50	2598	1039	1320	0.37	0.4	0.2	0.97	532	727
DSM-242-D	~24	~40	~100	2598	1039	1320	0.37	0.4	0.4	1.17	873	1109
DSM-341-D	~24	~40	~100	3106	1109	1424	0.37	0.4	0.3	1.07	812	1112
DSM-342-D	~48	~80	~200	3106	1180	1424	0.37	0.4	0.6	1.37	1395	1785
DSM-501-D	~60	~100	~250	3818	1222	1787	0.37	0.4	0.57	1.34	1418	2068
DSM-502-D	~120	~200	~500	3818	1570	1787	0.37	0.4	1.14	1.91	2590	3500
DSM-601-D	~120	~200	~500	4460	1522	2121	0.37	0.4	1.3	2.07	2239	3284
DSM-602-D	~240	~400	~1000	4460	1850	2121	0.37	0.4	2.6	3.37	4202	5632
DSM-701-D	~180	~300	~750	4963	1522	2506	0.37	0.4	1.9	2.67	2848	4028
DSM-702-D	~360	~600	~1500	4963	2020	2506	0.37	0.4	3.8	4.57	5420	7120

1 - The reference processing capacity refers to the estimated processing capacity of the equipment under unstable and unclear operating conditions and sludge properties;
2 - The general processing capacity refers to the processing capacity of the equipment under the conditions that meet the design requirements and the sludge is more conventional;
3 - The potential processing capacity refers to the processing capacity that the equipment can achieve under ideal working conditions, sludge meeting high concentrations, high density, and good water filtration.
4 - The spiral shaft and movable ring of DSM-S series are driven by the same motor.
5 - The spiral shaft and movable ring of DSM-D series are driven by different motors, which is more suitable for sludge with large fluctuations in concentration.

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