Applications

Municipal affairs

Printing and dyeing

Chemical engineering

Pharmaceuticals

Papermaking

Electroplating

leather

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Shanghai Fuchan Machinery Technology Co.,Ltd

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SFC®
PROFESSIONAL SEPERATION SOLUTION

High-Efficiency Sludge Reduction System Specialist

Complete Solutions for Sludge Treatment & Waste Valorization

Shanghai Fuchan Machinery Technology Co.,Ltd

COMPANY PROFILE

Our company

Development Achievements and Journey

After nineteen years of meticulous effort, the company has grown into a leading provider of environmental protection equipment in China. Its products are exported to Southeast Asia, Russia, South America, the Middle East, and other countries and regions, and its brand influence continues to rise.

Development History: The company was established in 2007, during which time it gradually achieved technological breakthroughs and expanded its scale.

In 2008-2009, we independently developed a screw-type sludge dewatering machine and a belt-type drum concentrator/dewatering unit, filling a domestic gap.

After 2010, we established production bases, promoted cooperation between academia, industry, and research, and expanded our presence in overseas markets.

Since 2017, the product has undergone continuous iterations, breaking through multiple core technologies, and transitioning into a provider of integrated environmental protection equipment services.

Certifications(Partial)

50+ national patents
(including 15 invention patents)

High-tech enterprise

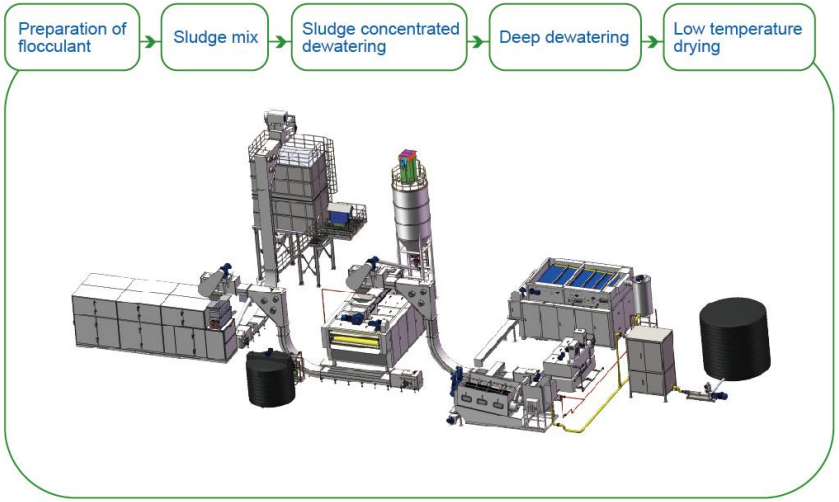
Our products

Core business system

comprehensive coverage of the entire sludge value chain.

The company has established a comprehensive sludge treatment system that encompasses seven core systems: HCP Smart Flow – Sludge Reduction System, Sludge Concentration System, Sludge Dewatering System, High-Pressure Belt Sludge Deep Dewatering System, Sludge Drying System, Chemical Addition and Automation System, and supporting auxiliary equipment system. This system can meet the diverse treatment needs of different customers.

Sludge treatment process



FBT SERIES BELT SLUDGE THICKENER

Working Principle

FBT series belt thickener is designed for sludge thickening and dewatering of solid content 0.4-1.5%, the final dried sludge content could be 5-7% for normal non-processing sludge from municipal biochemistry.The dried sludge content 10-12% for certain sludge when it is equipped with hydrophobic plough, pressure plate or pressure axis. The belt operating speed can be adjusted between 3-18 meters/min.

Technical character

1. Solid-capture rate 98%.
2. High-performance, durable and no maintance basicly.
3. Low energy consumption and low rotating speed.
4. Low polymer consumption.
5. Entirety body is made of stainless steel and polymer structure.

Specification & technical data

Spec. \ Model		FBT-1000	FBT-1500	FBT-2000	FBT-2500	FBT-3000	Remark
Belt Width(mm)		1000	1500	2000	2500	3000	
Treating Capacity(m^3/h) Inlet Consistency(S.S.0.6~1.5%)		12～20	25～35	35～50	45～65	65～95	Depends on the slurry feature
D.S.(kg/h) Dried Sludge		72～180	150～375	210～525	270～675	360～900	Depends on the slurry feature
Sludge Outlet Consistency(%)		2.5～8	2.5～8	2.5～8	2.5～8	2.5～8	Depends on the slurry feature
Power Consumption (KW)		0.55	0.75	1.1	1.5	1.5	
External Dimensions(mm)	L	5420	5620	5670	5670	6350	Please ask for the actual Dimension before ordering
	W	1670	2170	2600	3100	3600	
	H	1360	1360	1360	1360	1360	
Reference Weight(kg)		1100	1320	1750	1950	2460	

Remark:The specific size is subject to the drawing.Our company will reserve the modifying right of the above specifications.

FRDT SERIES ROTARY DRUM SLUDGE THICKENER

Working Principle

The rotary drum sludge thickener's working principle is very simple; feed the sludge into the dynamic reactor through sludge pump, and dosing pump, then it goes to rotary drum inside thickener, the rotary drum with compound filter colth will rotate with speed around 10 rmp. After water penetrate the filter cloth, the flocculant sludge will be holded back on.In order to keep the filter cloth clean, the cleaning nozzle will constantly clean the filter cloth, while it is soft impact to the floccules. The sludge concentration after thickening depends on solid content of feeding sludge, dosing quantity of flocculation, rotating speed and dip angle of drum.

Technical character

1. Fullly enclosed, no overflow of sludge,water and gas.
2. Compact structure and small footprint.
3. Solid capture rate 95%.
4. High-performance,durable and no maintance basiclly.
5. Low energy consumption, low polymer consumption, low rotating speed.
6. Entirety body is made of stainless and high polymer matierial and structure.

Specification & technical data

Spec. \ Model			FRDT-20	FRDT-25	FRDT-30	FRDT-35	FRDT-40	FRDT-50	FRDT-70	FRDT-80	FRDT-100	Remark
Filter Opening （目/Mesh）			30～80	30～80	30～80	30～80	30～80	30～80	30～80	30～80	30～80	
Treating Capacity(m^3/h) Inlet Consistency(S.S.0.6~1.5%)			7.5～20	12～25	15～30	20～30	30～40	38～50	40～60	60～80	75～100	Depends on the slurry feature
D.S.(kg/h) Dried Sludge			45～112	72～180	72～180	120～300	180～450	228～570	240～600	360～900	456～1140	Depends on the slurry feature
Sludge Outlet Consistency(%)			2.5～8	2.5～8	2.5～8	2.5～8	2.5～8	2.5～8	2.5～8	2.5～8	2.5～8	Depends on the slurry feature
Power Consumption (KW)	Driving Motor (Speed Variable)		0.75	0.75	0.75	1.1	1.1	1.5	1.1*2	1.1*2	1.5*2	
	Disposal Agitator Motor		0.37	0.37	0.37	0.37	0.37	0.55	0.37*2	0.37*2	0.37*2	
Lower Collecting Tray for Pressed Filtrate			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
External Dimensions(mm) (Reference)		L1	3210	3520	4400	4320	5120	5710	4320	5120	5710	Please ask for the actual Dimension before ordering
		L	4330	4630	5920	5430	6230	6820	5530	6330	7440	
		W	1080	1080	1260	1080	1080	1280	2080	2080	2360	
		H	1600	1600	1710	1600	1600	2160	1700	1700	2160	
Reference Weight(kg)			840	940	1400	1190	1450	1520	2070	2730	3800	

Remark:The specific size is subject to the drawing.Our company will reserve the modifying right of the above specifications.

SST SERIES SCREW SLUDGE THICKENER

Working Principle

The concentrated body of the volute sludge thickener consist of fixed ring and active ring.The main part is screw shaft .It intregrates the automatic control cabinet, flocculation disposal tank, sludge concentration part and compelet tank in one, underthe conditions of fully automatic operation, continously complete the sludge concentrate by sludge and flocculant by mechanical mixing fully and react to form 3- 5mm floc, gravity into the concentrated body;In the concentrated part, the sludge continues to move forward with the rotation of the screw shaft, the volume of the main chamber is continuously compressed, and the filtrate is filtered out flocculation, sludge solid content gradually increased to achieve rapid concentrate sludge;As the rotation of the screw shaft will drive the movement ring and the fixed ring rapaidly concentrate, device can achieve a continuous self-cleaning process to avoid block problem of the traditional equipment . The stacker concentrator can be used as pretreatment equipment for sludge dewatering and deep dewatering system. High pressure diaphragm panels or other dewatering equipments.

Technical character

1. Concentrated sludge range, suitable for water content range of 95% -99.8%
2. After the concentration of sludge in the range of 90-96%
3. High efficient concentration , small place
4. No filter cloth, self-cleaning, no clogging,without high pressure backwash water
5. Enclosed operation, reduce odor
6. Less vulnerable parts, low maintenance costs, long service life
7. Automatic control, continuous operation, easy maintenance and management

Specification & technical data

Spec. \ Model		SST-301	SST-302	SST-303	SST-304	SST-351	SST-352	SST -353	SST-354	SST-401	SST-402	SST-403	SST-404	
Treating Capacity(m³/h) Inlet Consistency(S.S.0.6～5%)		2～10	4～20	6～30	8～40	3～15	6～30	9～45	12～60	7.5～30	15～60	22.5～90	30～120	Depends on the slurry feature
D.S.(kg/h) Dried Sludge		30～120	60～240	90～360	120～480	45～180	90～360	135～540	180～720	90～360	180～720	270～1080	360～1440	Depends on the slurry feature
Sludge outlet consistency(%)		2.5～10	2.5～10	2.5～10	2.5～10	2.5～10	2.5～10	2.5～10	2.5～10	2.5～10	2.5～10	2.5～10	2.5～10	Depends on the slurry feature
Screw Specifications Diameter(mm)×Quantity(Root)		Φ285×1	Φ285×2	Φ285×3	Φ285×4	Φ330×1	Φ330×2	Φ330×3	Φ330×4	Φ400×1	Φ400×2	Φ400×3	Φ400×4	
Power Consumption (KW)	Driving Motor (Speed Variable)	0.55	0.55×2	0.55×3	0.55×4	0.75	0.75×2	0.75×3	0.75×4	1.1	1.1×2	1.1×3	1.1×4	
	Disposal Agitator Motor	0.37	0.37	0.37	0.37×2	0.37	0.55	0.55	0.55×2	0.37	0.75	1.1	0.75×2	
Lower Collecting Trav for pressed Filtrate		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
External Dimensions(mm)	L	2735	3030	3155	2905	3020	3295	3430	3185	3570	3875	4065	3565	Please ask for the actual Dimension before ordering.
	W	1070	1425	1835	2335	1120	1475	1985	2545	1225	1680	2250	2850	
	H	1505	1505	1495	1520	1750	1770	1770	1810	1950	1970	1985	1970	
Reference Weight (kg)		700	1200	1800	2400	1000	1700	2600	3300	1500	2800	4200	5300	

Remark:The specific size is subject to the drawing.Our company will reserve the modifying right of the above specifications.

DL SERIES SCREW SLUDGE DEWATERING MACHINE

Construction principle

Sludge Dewatering machine consists of multiple ring， active ring and volute filter, which is able to complete the sludge thickening and press dewatering .In concentration part,filtrate quickly discharge and never block through the relative movement between fixed and moved ,In the dewatering part,the conveyor make volume shrunk, enhance internal pressure by pressure plate,novel model replace the traditional model.The advanced solid-liquid separation and self-cleaning technology will bring new times.

Sludge dewatering principle

The interval in the thickening part of sludge dehydrator is 0.5mm,and the dewatering part is 0.3mm and 0.15mm,the screw pitch from the thickening part to dewatering part turns to narrow through the rotating of screw edge to push up the floating plates which make the space narrow while it goes to outlet.The sludge dewatering unit generate pressure and high pressure by pressure plate , discharge the sludge cakes.

Specification & technical data

Spec. \ Model		DL-101	DL-102	DL-201	DL-202	DL-301	DL-302	DL-303	DL-304	DL-351	DL-352	DL-353	DL-354	DL-401	DL-402	DL-403	DL-404
Inlet Consistency (S.S.0.6~5.0%)		0.1～0.3	0.2～0.6	0.45～1.5	0.9～3	1.5～5	3～10	4.5～15	6～20	2.25～7.5	4.5～15	6.75～22.5	9～30	4.5～15	9～30	13.5～45	18～60
D.S.(kg/h) Dried Sludge		1.5～4.5	3～9	7.5～22.5	15～45	25～75	50～150	75～225	100～300	37.5～115	75～230	112.5～345	150～460	75～225	150～450	225～675	300～900
Water Conten Rate(%)		78～85	78～85	78～85	78～85	78～85	78～85	78～85	78～85	78～85	78～85	78～85	78～85	78～85	78～85	78～85	78～85
Screw Specifications Diameter(mm)×Quantity(Root)		Φ85×1	Φ85×2	Φ170×1	Φ170×2	Φ285×1	Φ285×2	Φ285×3	Φ285×4	Φ330×1	Φ330×2	Φ330×3	Φ330×4	Φ400×1	Φ400×2	Φ400×3	Φ400×4
Power Consumption (KW)	Power Consumption (KW)	0.18	0.18×2	0.25	0.25×2	0.55	0.55×2	0.55×3	0.55×4	0.75	0.75×2	0.75×3	0.75×4	1.1	1.1×2	1.1×3	1.1×4
	Power Consumption (KW)	0.18	0.18	0.25	0.25	0.37	0.37	0.37	0.37×2	0.37	0.37	0.55	0.37×2	0.37	0.55	0.75	0.55×2
Lower Collecting Trav for pressed Filtrate		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
External Dimensions(mm)	L	1950	1950	2700	2890	3275	3505	3620	3395	3610	3820	3965	3770	4210	4475	4660	4440
	W	750	1000	885	1100	1010	1360	1835	2335	1035	1435	1990	2540	1185	1635	2250	2850
	H	1130	1130	1355	1550	1500	1500	1555	1580	1750	1750	1770	1850	2000	2070	2120	2120
Reference Weight(kg)		190	300	500	700	1050	1800	2550	3300	1200	2100	3100	3900	2050	3700	5500	7100

Remark:The specific size is subject to the drawing.Our company will reserve the modifying right of the above specifications.

SRD WEAR-FREE MULTI-DISC SCREW PRESS DEWATERING MACHINE

Technical principle

Double screw shaft material conveying method, two spiral shafts run side by side in the filter chamber, roll each other to clean the sludge on the other spiral shaft, without blocking.
Under the joint drive of eccentric wheel, connecting plate and guide device, there is no longer any problem of wear and deformation. Because the movable ring is independently driven, the movement speed is not restricted by the spiral shaft, which can make the water filtration speed becomefaster, and the double spiral shaft can achieve continuous and rapid material transportation to achieve more efficient sludge dehydration.

Advantages

Wear-free multi-disc screw press dewatering machine solves the two major defects of traditional spiral machine main parts wear and material clogging main body.
It is suitable for sludge dewatering treatment in various industries with low concentration, strong viscosity, oil and high inorganic content.

- Energy conservation
- Self-cleaning
- No blockage
- Intelligent control
- No wear and tear

Specification & technical data

Spec. \ Model		SRD-301	SRD-302	SRD-303	SRD-304	SRD-351	SRD-352	SRD-353	SRD-354	SRD-401	SRD-402	SRD-403	SRD-404	
Treating Capacity(m³/h) Inlet Consistency(S.S.0.6～5%)		1.5～5	3～10	4.5～15	6～20	2.25～7.5	4.5～15	6.75～22.5	9～30	4.5～15	9～30	13.5～45	18～60	Depends on the slurry feature
D.S.(kg/h) Dried Sludge		25～75	50～150	75～225	100～300	37.5～115	75～230	112.5～345	150～460	75～225	150～450	225～675	300～900	Depends on the slurry feature
Water Conten Rate(%)		78～85	78～85	78～85	78～85	78～85	78～85	78～85	78～85	78～85	78～85	78～85	78～85	Depends on the slurry feature
Screw Specifications Diameter(mm)×Quantity(Root)		Φ270×1	Φ270×2	Φ270×3	Φ270×4	Φ295×1	Φ295×2	Φ295×3	Φ295×4	Φ370×1	Φ370×2	Φ370×3	Φ370×4	
Power Consumption (KW)	Driving Motor (Speed Variable)	0.55	0.55×2	0.55×3	0.55×3	0.75	0.75×2	0.75×3	0.75×4	1.1	1.1×2	1.1×3	1.1×4	
	Disposal Agitator Motor	0.37	0.37	0.37	0.37×2	0.37	0.37	0.55	0.37×2	0.37	0.55	0.75	0.55×2	
Lower Collecting Trav for pressed Filtrate		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
External Dimensions(mm)	L	3410	3645	3755	3530	3750	3960	4105	3910	4335	4605	4790	4570	Please ask for the actual Dimension before ordering.
	W	1060	1455	1995	2535	1090	1555	2145	2745	1205	1775	2490	3190	
	H	1705	1705	1705	1730	1900	1900	1920	1950	2150	2230	2230	2310	
Reference Weight (kg)		1200	2100	3050	4000	1450	2600	3850	4900	2450	4500	6700	8700	

Remark:The specific size is subject to the drawing.Our company will reserve the modifying right of the above specifications.

BELT FILTER PRESS

GDY SERIES BELT SLUDGE CONCENTRATION AND DEWATERING MACHINE

FTB SERIES ROTARY DRUM SLUDGE DEWATERING MACHINGE

Working Principle

1: Machine was composed of rotary drum and belt press dewatering.The processing flow is : sludge inlet, polymerdosing,mixing,reaction,thickening and dewatering under steady flow conditions to remove the water from sludge.
2: The sludge and flocculants are added to the conditioning tank together and after proper stirring and retention time will get a good gel plume is formed.
3: The sludge plume overflows into the drum by gravity, rotates and thickens through relative motion, increasing the speed of free water separation and sludge concentration to form a solid sludge mass.
4: The sludge falls into the gravity dewatering zone of the upper belt filter to get the second stage gravity dehydration.At the same time,the sludge equalizer is positioned and adjusted to force the sludge to be uniform in thickness and width.
5: The evenly divided sludge dropped to the gravity dehydration zone of the lower belt filter to get the third stage of gravity dehydration. At this time, the sludge solids concentration can reach over 8-10%.
6: The sludge begins to enter into the initial pressure wedge-shaped throat, initial pressure → low pressure → medium pressure → high pressure, and squeezes and dewaters in a horizontal wave-shaped motion track.
7: The sludge cake attached to the belt filter is derived, and peeled off by a scraper and dropped into the next stage processing unit.
8: Sludge cake solid content can reach to 15-22%.

Technical character

This product has high dewatering efficiency, large sludge treatment capacity, automatic continuous operation, low energy consumption, low noise, simple structure, semi-closed structure, convenient maintenance; The machine operation is simple, general staff after a short time of learning, you can master the whole operation process.

MHSD MULTI-STAGE HIGH-PRESSURE BELT TYPE SLUDGE DEWATERING MACHINE

MHSD-multi-stage high-pressure belt sludge dewatering machine adds a pre-pressure filtration system to filter the sludge at low pressure, medium pressure and ultra-high pressure to maximize the sludge compression ratio and improve the sludge dehydration rate.

Working principle

1. The equipment integrates sludge conditioning, thickening and dewatering functions, The complete dewatering process is performed in the following sequence: polymer dosing, mixing, conditioning (for sludge property modification), thickening, and high-pressure dewatering/pressing.
2. The solid content of sludge cake can reach 25 ~ 40%.

Technical character

1. Integrated continuous operation, high processing effect.
2. A variety of mud moisture content can be adjusted, strong applicability.
3. Simple operation and maintenance.
4. Low investment and operating costs.

Specification & technical data

Spec. \ Model		MHSD-1000	MHSD-1500	MHSD-2000	MHSD-2500	MHSD-3000	Remark
Belt Width(mm)		1000	1500	2000	2500	3000	
Treating Capacity(m³/h) Inlet Consistency(S.S.0.6~1.5%)		15～20	25～35	30～45	40～65	65～90	Depends on the slurry feature
D.S.(kg/h) Dried Sludge		90～225	150～375	210～525	300～750	420～1050	
Water Conten's Rate(%)		65～73	65～73	65～73	65～73	65～73	
Power Consumption (KW)	Driving Motor (Speed Variable)	6.6	7.6	9.8	13.9	17.0	
Lower Collecting Trav for pressed Filtrate		None	None	None	None	None	
External Dimensions (mm)	L	6645	6645	6645	6645	6645	Please ask for the actual Dimension before ordering
	W	1810	2310	2810	3310	3810	
	H	4220	4220	4220	4220	4220	
Reference Weight (kg)		3900	6000	7200	10800	13000	

Remark:The specific size is subject to the drawing.Our company will reserve the modifying right of the above specifications.

UTC FULLY AUTOMATIC UNATTENDED FILTER PRESS

Technical character

Complete cake separation from the filter plate, selfwashing of flter cloth and automatic openane shutting simulraneously

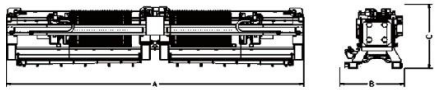
Witheut adding lime,Moisture content below 60%, High pressure stability,High dewalering oailily, cyele time saving and easy mainlenance

Fully enclosed,Easy to deoderization collection Control nonpoint source pollution

Fully automated system unmanned operation High working efficiency, Small volume, Small area

Application field widely: Chemical industry, thermal power industry, sewage treatment industry,Paper industry, cement industry, biopharmaceutical industry and femmentation industry

NSD-G型 NSD-G type



Filter plate size (mm)	Number of chambers	Filter Area (m²)	Overall dimension (mm)					Type
			Length	Width		Height		
				Including water tank	Excluding water tank	Including water tank	Excluding water tank	
1500	60	216	11410	4120	2950	4375	3940	double - sided clamping pressure
	68	245	13070					
	80	288	15560					
	88	317	17220					
	100	360	19710					
1750	60	312	12170	4370	3200	4625	4190	
	68	354	13830					
	80	416	16320					
	88	458	17980					
	100	520	20470					
2000	32	215	11590	4800	3400	4580	4080	
	40	269	13690					

Remark:The specific size is subject to the drawing.Our company will reserve the modifying right of the above specifications.

HIGH PRESSURE BELT SLUDGE DEEP DEWATERING SYSTEM

Working Principle

The high pressure belt sludge deep dewatering system can continuously dewater the sludge twice. The sludge after a dewatering (moisture content of about 80%) enters the sludge high efficiency mixer and the modifier and curing agent are fully stirred and mixed, so that the sludge can achieve wall breaking and electric neutralization, change the sludge properties, and reduce the specific resistance of sludge dehydration. The mixed sludge enters the sludge distribution system of the high pressure belt sludge deep dewatering machine, and the sludge passes through the pre-pressure section and medium pressure area of the high pressure belt dewatering machine. A series of press rollers such as high-pressure zone and auxiliary press roller wheel dehydrate, so that the sludge moisture content is reduced to 60% (can be achieved below 70% according to the project requirements) to facilitate the subsequent sludge drying or comprehensive disposal.

SD

LSD

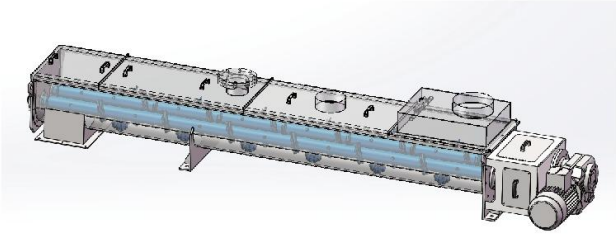
ZSD

Specification & technical data

spec. \ Model		SFC-LSD05	SFC-LSD10	SFC-LSD15	SFC-LSD20	SFC-LSD25
Treating Capacity(t/h) Sludge Inlet Consistency(S.S.15%～20%)		0. 3～0. 7	0. 8～1. 7	1. 3～2. 8	1. 8～4. 0	2. 3～5. 0
Dried Sludge(kg/h)		60～100	160～270	260～430	360～600	460～760
Water Conten's Rate (%)		65～75	65～75	65～75	65～75	65～75
Treating Capacity(t/h) Sludge Inlet Consistency(S.S.15%～20%)		0. 35～0. 8	0. 9～2. 1	1. 5～3. 4	2. 1～4. 8	2. 7～6. 1
Dried Sludge(kg/h)		70～120	190～320	310～520	430～720	550～920
Water Conten's Rate (%)		60～70	60～70	60～70	60～70	60～70
Power Consumption (KW)	Driving Motor (Speed Variable)	0. 55	1. 1	1. 5	2. 2	3
	Sludge Mixer (Speed Variable)	2. 2	2. 2	3. 0	4. 0	5. 5
	Sludge Distribution Spiral(Speed Variable)	0. 25	0. 25	0. 55	1. 1	1. 5
	Sludge Crushing Screw	0. 37	0. 37	0. 37	0. 55	0. 75
External Dimensions(mm)	L	2600	2900	3250	3450	3600
	W	1370	1870	2410	3010	3510
	H	2290	2860	3270	3350	3500

Remark:The specific size is subject to the drawing.Our company will reserve the modifying right of the above specifications.

SFC-DM SLUDGE MIXER



SFC-DM sludge efficient mixer was developed specifically for sludge depth systems.

Working Principle

1. Stir evenly, slow speed, stir thoroughly.
2. Adjust the Angle and speed of stirring paddle according to the characteristics of sludge.
3. No plugging, low failure rate. Silent and closed operation.
4. The sludge is fully mixed with the reagent in the mixer to achieve electric neutralization and wall breaking.
5. The blade of SFC-DM sludge efficient mixer is made of alloy material, which has high corrosion resistance and strong wear resistance. All blades are split and detachable. The tank body is made of 304 material and is anticorrosive with lining glue.

BATCH SLUDGE DRYING MACHINE

Working Principle

1. The batch sludge drying machine break the traditional sludge dewatering and then dry system, energy is alternately circulated by two systems to dischargewater to achieve reduce sludge .

2. Heat exchanger system generated heat to enhance the circulating air temperature, circulating air through the sludge,hot air make sludge moisture spread to the enclosed air, when the circulating air through the cold heat exchanger, the circulating air temperature decreases, the air moisture temperature drop . After the condensed dry air recirculate to the heat exchanger discharge.

Technical character

1. Sludge can be reduced up to 70% after drying.
2. No emissions, no secondary pollution,low noise.
3. Save energy .
4. Integrated design, small footprint, save space.
5. Modular design, easy install.
6. PLC set the return air temperature automatically shut down.

Specification & technical data

Model	SFC-TR1000	SFC-TR1500	SFC-TR2000	SFC-TR3000	SFC-TR4500	SFC-TR6000	SFC-TR9000
Quantity of each batch of dried sludge	1000	1500	2000	3000	4500	6000	9000
Water extraction capacity(kg/hr)	21-35	33-55	45-70	66-120	100-180	120-240	200-360
Required power (estimated) (kw)	15	25	45	45	75	100	145
Unit power consumption (kwh/kg)	0.4-0.55	0.4-0.55	0.4-0.55	0.4-0.55	0.4-0.55	0.4-0.55	0.4-0.55
Size of the drying machine (mm)W*L*H	1200*2000*1700	2200*1500*2000	2100*2000*1700	1800*2400*2000	2350*3000*3000	7445*9712*4848	(2350*3000*3000)*2

Remark:The specific size is subject to the drawing.Our companywill reserve the modifying right of the abovespecifications.

SFC-BSD SERIES - BELT SLUDGE DRYING MACHINE

Purpose of sludge drying

The basic goal of sludge drying is to separate the free water and cell-bound water in the dehydrated sludge from the sludge, and kill the virus through high temperature, so that the sludge can achieve harmless, stable and reduced.

Character of sludge drying

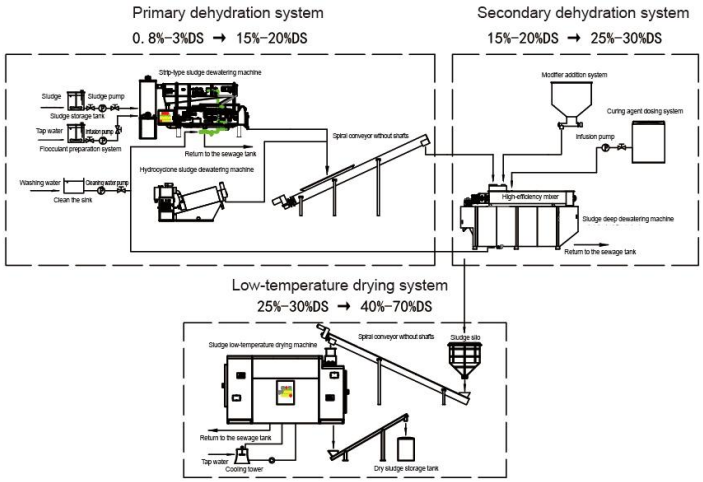
The belt sludge desiccator is a compact sludge desiccator with high efficiency, energy saving and environmental protection. It uses high temperature heat pump as the drying heat source to dry the dehydrated sludge from 80% moisture content to less than 30% moisture content under the condition of 55℃.
The whole process is completely closed form, no odor overflow. Belt drying machine can be modular design, can increase the number of drying modules to increase the processing capacity, and can be customized according to customer requirements.

Specification & technical data

Spec. \ Model		BSD1000	BSD2000	BSD3000	BSD4000	BSD6000	BSD9000	BSD12000	BSD15000	BSD18000	BSD21000	BSD24000	BSD27000	BSD30000
Treating Capacity(t/h) Sludge Inlet Consistency (S.S.15%~25%)		0.8~1.9	1.7~3.8	2.6~5.7	3.4~7.6	5~11	7.7~17	10~23	13~28	15~34	18~40	20~46	23~51	25~57
Treating Capacity(t/h) Sludge Inlet Consistency (S.S.25%~35%)		1~3	2~6	3~9	4~12	6~18	9~27	10~36	15~45	18~54	21~63	24~72	27~84	30~90
Water Conten's Rate (%)		10~50	10~50	10~50	10~50	10~50	10~50	10~50	10~50	10~50	10~50	10~50	10~50	10~50
Power Consumption (KW)	Compressor	13.8	13.8×2	20.7×2	13.8×4	20.7×4	20.7×6	20.7×8	20.7×10	20.7×12	20.7×14	20.7×16	20.7×18	20.7×20
	Circulating Fan (Speed Variable)	3.7	5.5	7.5	5.5×2	7.5×2	7.5×3	7.5×4	7.5×5	7.5×6	7.5×7	7.5×8	7.5×9	7.5×10
	Driving Motor (Speed Variable)	0.18×2	0.18×2	0.18×2	0.37×2	0.37×2	0.55×2	0.75×2	1.1×2	0.55×4	0.75×4	0.75×4	1.1×4	1.1×4
	Sludge CForming Machine (Speed Variable)	2.2	2.2	2.2	2.2	2.2	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Dry sludge conveyor		0.37	0.37	0.55	0.55	0.55	1.5	2	2.2	2.2	2.2	2.2	3	3
Power consumption(KW)		23	39	55	73	105	156	206	258	307	357	406	457	506

Remark:The specific size is subject to the drawing.Our companywill reserve the modifying right of the abovespecifications.

SLUDGE DEEP DEWATERING + LOW TEMPERATURE DRYING PROCESS



Sludge dewatering and drying process flow diagram

Steps

The first step:
The primary dewatering system is to pass the sludge and chemicals with a moisture content of about 99% into the sludge mixing tank through the sludge pump and the dosing pump to form good flocs. After the sludge dehydrator dehydrated, will form 80% water content sludge cake.

The second step:
The secondary dewatering system is to add the sludge cake after the primary dewatering to water content of 80% into the modified dehydrating agent and enter the high-efficiency mixer through the conveyor. After fully mixing, the sludge is modified and adjusted to release cell adsorption and internal water ,which enter the deep sludge dewatering machine and evenly distributed on the filter cloth, and the sludge water content is further pressed through multi-stage pressing to obtain sludge cake with water content of 60-70%. The sludge cake passes through the conveyor to the wet sludge silo.

The third step:
The low-temperature heat pump drying system is to pass the sludge cake after the secondary dehydration with water content of 60-70% into the low-temperature dryer through the screw conveyor, and then pass the sludge into the low-temperature dryer through it's own cutting and forming machine.
The sludge is cut into strips and distributed evenly on the mesh belt. The high-temperature dry air generated by the heat pump, steam or waste heat enters the lower part of the mesh belt and contacts the sludge, which converts the water in the sludge into steam and takes it away and turns it into damp heat .The air enters the heat pump and condenses the moisture out. After heating, it forms hot air again and enters the mesh belt to dry the sludge.

AUTOMATIC DOSING SYSTEM

The automatic powder dosing system is suitable for various powder dosing processes, and can be divided into continuous or batch dosing processes. By adding dry powder through the screw propeller, solutions of different concentrations can be accurately obtained, which is suitable for the preparation of flocculant, activated carbon, potassium permanganate, and coagulant solutions.
The structure can be designed as upper and lower two-boxes, three-boxes according to customer needs, and can be customized into rectangular or circular or other structural forms according to customer needs. The material can be made of 304, 316L PP and other materials, and non-standard customization is acceptable.

Two-box se tomatic powder preparation unit

The PL2 two-box series automatic powder preparation and dosing device adopts an upper and lower structure, the upper cavity is dissolved and matured, and the lower cavity is stored.
The outlet of the powder spiral dosing device is a shutter design, and there is a heater outside the spiral tube.

OWN the following advantages:

- Compact structure, small footprint
- The water pressure has no effect on the configuration concentration
- The solution concentration is more stable
- The best curing time is controllablerr
- Continuous batch operation, stable dosage

Three-box type automatic powder preparation unit

The PL3 automatic three-box powder preparation system is divided into a dissolving tank, a curing tank and a storage tank. It can be controlled manually or automatically.
The system is compact in structure, can be operated automatically, and the preparation concentration is adjustable.

Applicable agent type

- Poly Aluminum Chloride (PAC)
- Polyacrylamide (PAM)
- Aluminum sulfate
- Activated Carbon

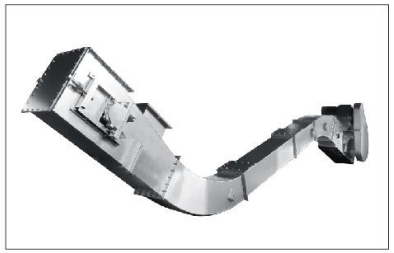
SLUDGE CONVEYING SYSTEM

Wet sludge conveying facility

Due to the physical characteristics of wet sludge such as high viscosity, peculiar smell and uneven moisture content, special conveying equipment such as belt conveyors, screw conveyors, scraper conveyors, pipe chain conveyors, etc. are required during transportation.
For different sludge, we recommend different facility. The basic principle is to achieve: the sludge is conveyed in a sealed manner, without material or odor overflow; anti-corrosion and wear-resistant materials are used to extend the trouble-free operation time of the equipment; the conveying capacity of the sludge can be Controlled, smooth mud in and out.
The screw conveyor can meet the closed and quantitative conveying during the conveying process, but the conveying angle cannot be too large.
The screw pump can transport wet sludge with low solid content in a closed and quantitative way, but materials with high solid content cannot be transported.
The buried scraper conveyor not only satisfies the closed transportation of sludge, the transportation angle can reach 70° or more, the transportation distance is long, and the service life is long.

Dry sludge conveying facility

The tube chain conveyor is a continuous conveying facility for conveying powder, small particles and other bulk materials. The chain is used as a transmission mechanism to drive the animal material along the channel in a closed channel.
It is characterized by compact structure and tight sealing.
No dust removal device is required at the outlet.



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