



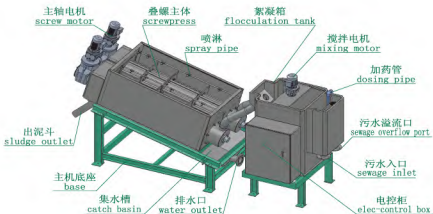
产品概况 Introduction

本公司生产制造的易维护叠螺污泥脱水机，于2010年申报并获得中国发明专利，目前已形成9种规格型号系列，以适用不同的污泥处理量及不同需求的客户。

Our easy maintenance screw dehydrator, had got Chinese patent since 2010, now it has 9 series to meet various sludge concentration and different customers' demand.

叠螺污泥脱水机集全自动控制柜、污泥浓缩脱水本体及集液槽于一体，可在全自动运行的条件下，实现高效絮凝，并连续完成污泥浓缩和压榨脱水工作，最终将收集的滤液回流或排放。

The screw sludge dewatering machine is integrating with auto-control cabinet, sludge thickening & dewatering body liquid collection tank. Therefore, the high efficiency flocculation, continuous sludge concentration, dewatering and filtrate collection can be automatically completed all-in-one, the collected liquid will be reflux or emissions finally.



应用场合及优点 Application and advantages

适用于市政污水、石油炼化、酿造制革、印染造纸、煤化选矿、生化制药、钢铁酸洗、化工制糖、食品加工等。

优点：1、运行成本低：相当于带式压滤机40%不到，相当于离心脱水机20%不到。2、节电：不到离心机的5%。3、节水：不到带式压滤机的0.1%。4、省药：平均省药60%。5、体积小：脱水机房投资省60%以上。6、不堵塞：含油脂类纤维类污泥的克星。

Application: municipal sewage petro-refining, leather making, printing and dyeing paper, coalification dressing, biochemical biochemical pharmacy, steel pickling and chemical sugar, food processing etc.

Advantages: 1.Low operation cost: below 40% of belt press and 20% of centrifuge.

2. Power-saving: less than 5% of centrifuge.

3. Water-saving: less than 0.1% of belt filter press.

4. Saving-drugs saving around 60%.

5. Compact: saving more than 60% of the investment for dehydration room.

6. Non-clogging: processing the fats & oils and fiber sludge perfectly.



主要特点 Key Features

- 工艺流程简单，污泥脱水高效节能，系统投资小
Simple processing, low investment system, energy-efficient in dewatering
- 系统可进行程序设定，使操作运行方便准确
System can be programmed to make the operation more convenient and accurate
- 独有的絮凝药剂，使污泥更容易脱水
Unique flocculating agent make sludge dewatering easier
- 配药均匀准确，节省运行费用
Uniform and accurate dispensing, saving costs



生物制药
Biochemical pharmacy



石油炼化
Petro-refining



酿造制革
Leather making



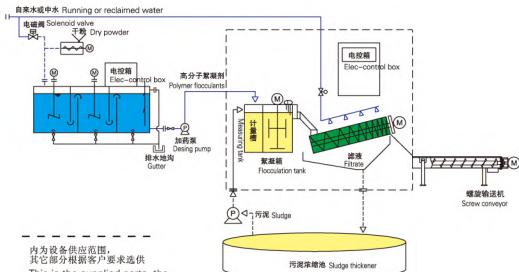
化工制糖
Sugar refining



食品加工
Food processing



流程图 Flow chart



内为设备供应范围，
其它部分根据客户要求选供
This is the supplied parts, the
others can be customized.



叠螺进泥过程
Sludge entering



叠螺絮凝过程
Flocculating



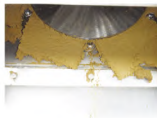
叠螺脱水过程
Dewatering



叠螺浓缩过程
Compressing



叠螺冲洗过程
Rinsing

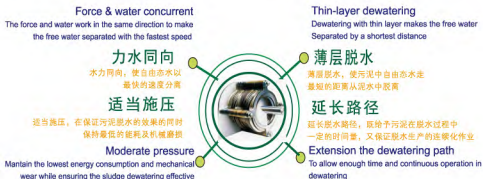


叠螺排泥过程
Sludge discharging

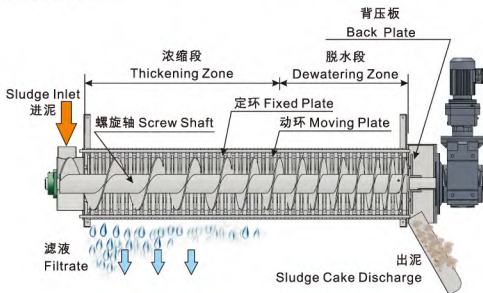


工作原理 Working Principle

设备运行时，污泥从进料口进入滤筒后受到螺旋轴旋片的推送而向卸料口移动，由于螺旋轴旋片之间的螺距逐渐缩小，因此污泥所受的压力也随之不断增大，并在压差作用下开始脱水，水份从固定板与活动板的过滤间隙流出，同时设备依靠固定板和活动板之间的自清洗功能，清扫过滤间隙防止堵塞，泥饼经过充分的脱水后在螺旋轴的推进作用下从卸料口排出。



When the machine starts running, the sludge is pushed into the filter cartridge from the feed inlet and then moves to the sludge cake outlet under the pushing of the helical axis blades. Because the gaps among the helical axis blades will gradually getting narrower, the sludge is undering heavier pressure. Then the water gradually comes out from it as a result of pressure differential and issues from the filtering space between the fixed plates and the moving plates. Relying on the self-cleaning function of the fixed plates and the moving plates, block can be well avoided. At last, the sludge cakes are pushed by helical axis after being fully dewatered and then discharged from the outlet.





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叠螺优势对比

Screw advantages contrast

叠螺优势对比

Screw advantages contrast

机种(Model)		叠螺脱水机(Volute dehydrater)	带式脱水机(Belt dehydrater)
构造图 Construction			
		螺旋压滤(Screw press)	重力 + 剪切脱水(Gravity+shear dewatering)
脱水原理 Dewatering principle	原理 Principle	由固定环, 游动环相互层叠, 螺旋轴贯穿其中形成过滤主体。通过重力浓缩以及污泥在推进过程中受到背压板形成的内压作用实现充分脱水, 滤液从固定环和活动环所形成的滤缝排出, 泥饼从脱水部的末端排出。 The filter main part is formed by a screw axis with fixing and moving plates overlapping. It dewaterers adequately by the gravity and the power from back pressure plate during the process of progradation, the filter comes out from the space between fixing and moving plates, the sludge cake discharged from the discharge outlet.	由上下两张索的滤带夹带着污泥层, 从一连串有规律排列的辊压筒中呈 S 形经过, 依靠滤带本身的张力形成对污泥层的压榨和剪切力, 把污泥层中的毛细水压挤出来, 从而实现污泥脱水。 The sludge goes through barrels in regular "s" shape by two tension filter Belt upper and down, the sludge dewaterers rely on the force from the tension of filter belt.
特点 Feature	优点 Advantage	能自我清洗, 不堵塞, 低浓度污泥直接脱水 转速慢, 省电, 无噪音和振动, 实现全自动控制, 24 小时无人运行。 Self cleaning, never plugged, low concentration of sludge dewatering directly. Low speed save electricity, noise and vibration. Realizing automatic, 24 hour unmanned operation.	价格比较低, 目前使用普遍, 技术相对成熟 Lower price, widely used, mature technology.
	缺点 Disadvantage	不擅长颗粒大, 硬度大的污泥脱水, 处理量较小 Not good at big granular, and hardness sludge dewatering. Lower processing quantity	易堵塞, 需要大量的水清洗, 造成二次污染。 Easily blocked, need lots of water cleaning, cause the secondary pollution
污泥贮存罐(sludge tank)		不需要 No need	需要 Need
用电量(power consumption)		非常少 Very little	大 Lot
清洗冲淋用水 Cleaning drench water quantity		非常少 Very little	非常大 Very lot
运转噪声、震动 Operating noise, vibration		小 Small	大 Big
维修管理 Maintenance management		操作时间短, 便宜 Short operating time, cheap	操作时间长 Long operating time
污泥粘性要求 Sludge viscous requirements		低 Low (更适合含油污泥)	要求高 High
絮凝剂 Flocculant		使用 Use	使用 Use
泥饼含水率 Mud cake water content		~80%	> 80%
污泥处理率 Sludge processing efficiency		> 95%	90-95%
24小时无人连续运行 24 hour self-service running		可以 Yes	不可以 No



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KTS. KTY型螺旋输送机. 压榨机

Type KTS. KTY Rotatins Conveyor, Presser

应用场合 Applications

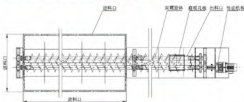
1. 可直接安装于拦截渣道或污泥脱水设备后, 做成密闭结构, 进行输送和压榨, 起到汇集及改善环境、渣物减量等作用, 便于后续处理。
2. 无轴一般用于普通密封场合; 有轴一般用于较高密封场合。
3. XY型转弯挤压式螺旋压榨机以压榨为主要功能, 具有一定的渣物输送提升功能, 适用输送距离不长, 扬程不高的场合。一般为有轴结构; XY+型重力板挤压式螺旋输送压榨机以输送功能为主, 或具有输送和压榨一体化的功能, 一般为无轴结构。
4. 螺旋输送机的高度提升(角度输送)一般需另外建立, 即水平输送段和倾斜输送段各自完全分开。
5. 双轴型螺旋输送压榨机的输送量可达单轴的1.5~2倍。

1. Installed directly behind residue-intercepted and fetched facility and sludge dewatering equipment, it can be made as sealed construction and has functions of collection improving environmental sanitation and decreasing residue. So it can make later treating convenient.
2. Generally no-shaft style is adapted to common degree of density case and shaft style is adapted to tighter case.
3. Type XY turning press style rotating presser has main function of press and other functions such as residue conveying and lifting. They are common shaft structure that can be used in situations that no long distance conveying and no high conveying. Type XY-gravity plate squeezing style rotating presser has main function of conveying or conveying function combined with pressing. They are common no-shaft structure.
4. The height lifting (angle conveying) of rotating conveyor generally should be built extra. So horizontal conveying and tilted conveying can be divided entirely.

型号表示 Model Designations



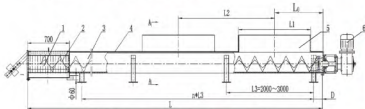
KTSS型双轴螺旋输送机 Type KTSS Rotating Conveyor



KTLY型无轴螺旋输送压榨机

KTSS型双轴螺旋输送机

Type KTLY No Shaft Rotating Conveying Presser

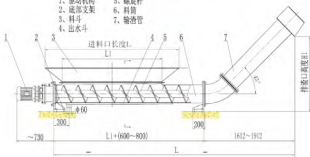


1. 驱动装置
2. 无轴螺旋
3. U形槽
4. 盖板
5. 进料口
6. 驱动机构



KTY型外形结构 Type KTY Outline

KTLY型无轴螺旋输送压榨机



KTY 螺旋压榨机



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KTS, KTY型螺旋输送机. 压榨机

Type KTS, KTY Rotating Conveyor, Presser

特点 Features

1. 全自动电气保护, 可实现与格栅除污机的联控。
2. 结构紧凑, 安装方便, 采用膨胀螺栓即可固定。
3. 槽内衬耐磨材料, 检修方便, 使用寿命长。
4. 可密闭运行, 噪声小, 改善环境。
5. 长度、角度、接出料斗可按要求订制。
6. 螺旋叶片由不锈钢或锰钢制作, 强度高, 耐腐蚀。

1. Fully automatic electric protection can be co-controlled with Bar Rack Cleaner.
2. Compact in structure, convenient installation with expansion bolts.
3. Using wear-resisting material bars in trough, its examining and repairing is convenient and it has a long life.
4. Closed running make the noise low and surroundings better.
5. Its length, angle and discharging hopper can be manufactured according to customers requirements.
6. The spiral blades are made of stainless steel and have big strength and good resistant to corrosion.

技术参数 Technical Parameters

项目	型号	KTLS-260	KYLS-300	KTLS-360	KTLS-420	KTLY-260	KTLY-300	KTY-200	KTY-300	KTY-400	KTS-400
转速 (rpm)		18 (水平); > 18 (倾斜)				18~22		5~6			~22
输送量	0°	3	6	9.5	12	3	9.5	1.5	3	4.5	~15
或处理量	15°	2.1	4.6	6.5	9						
(m³/h)	30°	1.3	2.6	4.3	5.7						
螺旋直径 (mm)		220	260	320	380	220	260	200	300	400	400
输送长度 L (m)		6				6		2.5 < L < 5.5 (每 0.5 米一档)			< 25
功率 (参考) (kW)		1.1	1.5	2.2	3	2.2	3	1.1~1.5	2.2~3	4~5.5	5.5~18.5
安装角度 α		< 20° (特殊订货 20° < α < 30°)								0° (推荐)	
密实度 (压榨后)						70%		> 90%			
A		450	500	540	600	450	500	530	580	620	资料 向本 公司 另索
B		300	340	410	470	300	340	265	370	450	
C		> 200									
D		150		200		150					
E		350	380	450	500						
H		450	500	540	600	450	500	404	504	604	
HI										1200~1500	

注: 1. 表中括号内功率对应: L=6000mm, 介质为含水率 80% 污泥; 2. 安装角度 α 指螺旋体轴线与地面夹角;
3. 密实度 (理论值): 压榨后堆比重 / 比重。

订货须知 Ordering Instructions

1. 对照技术参数结合工艺要求合理选型, 注明型号规格及材料数量、尺寸、高度、输送长度、角度等参数。
2. 减速机品牌分进口和国产, 型号分立式摆线轮和轴装结构。不注明表示按国产立式摆线订货。
3. 螺旋叶片材质分锰钢和不锈钢, 外壳体分碳钢、不锈钢。不注明表示外壳体碳钢, 锰钢叶片和普通防腐订货。
4. 电控箱 (一般在主体设备电箱内), 强操作 (一般指膨胀螺栓) 及所有配套设施等均需另外订货。
5. 输送角度大于 20°, 进、出料口与其它设备要密封连接要求等, 可提出要求, 另索资料, 商量订货。
1. Rational model should be selected according to technical parameters combined with process requirements. Note type, specification and parameters such as number of hopper, size, height, length of conveying, angle.
2. Reducers can be divided domestic and import and have two installation styles of shaft type and horizontal cycloid type. We will supply domestic horizontal cycloid Reducers if not note.
3. Material of spiral blades is divided into stainless steel and manganese steel, material of crust is divided into carbon steel and stainless steel. Without note crust is carbon steel, spiral blades is manganese steel, also they are normal anticorrosion.
4. Electric cabinet (generally it is contained in main electric cabinet), embedded parts (generally is expansion bolts) and auxiliary facility should be ordered extra.
5. If conveying angle is larger than 20° and has requirements of sealing and joining to other equipments, please note it, ask for extra data and place consulting order.

Model choice reference								
Model	Standard processing quantity(kg/h)		Sludge flow(m3/h)					
	low concentration	high concentration	2000mg/L	5000mg/L	10000mg/L	20000mg/L	25000mg/L	50000mg/L
KT131	7	10	3.5	1.4	1	0.5	0.4	0.2
KT132	15	20	7.5	3	2	1	0.8	0.4
KT133	20	30	10	4	3	1.5	1.2	0.6
KT251	20	30	10	4	3	1.5	1.2	0.6
KT252	38	60	19	7.6	6	3	2.4	1.2
KT253	55	90	27.5	11	9	4.5	3.6	1.8
KT301	40	60	20	8	6	3	2.4	1.2
KT302	75	120	37.5	15	12	6	4.8	2.4
KT303	115	175	57.5	23	17.5	8.75	7	3.5
KT304	150	230	75	30	23	11.5	9.2	4.6
KT351	65	100	32.5	13	10	5	4	2
KT352	125	200	62.5	25	20	10	8	4
KT353	185	300	92.5	37	30	15	12	6
KT354	250	400	125	50	40	20	16	8
KT401	95	155	47.5	19	15.5	7.75	6.2	3.1
KT402	185	310	92.5	37	31	15.5	12.4	6.2
KT403	285	455	142.5	57	45.5	22.75	18.2	9.1
KT404	365	610	182.5	73	61	30.5	24.4	12.2

Specification							
Model	Screw axis specification	Height of mud cake outlet port	Dimension			NW	Processing weight
			Length	Width	height		
KT131	φ 130	570	2370	880	1630	220	320
KT132	φ 130	570	2370	960	1630	360	530
KT133	φ 130	570	2370	1140	1770	500	740
KT251	φ 200	620	2850	880	1750	480	600
KT252	φ 200	620	2980	1090	1770	810	1050
KT253	φ 200	620	3170	1470	1950	1140	1500
KT301	Φ 250	650	3500	990	2000	700	980
KT302	Φ 250	650	3600	1180	2000	1260	1820
KT303	Φ 250	660	3600	1640	2000	1820	2660
KT304	Φ 250	660	3750	2100	2000	2380	3500
KT351	φ 300	680	3530	990	2100	920	1330
KT352	φ 300	680	3740	1370	2100	1720	2540
KT353	φ 300	700	4080	1850	2110	2520	3750
KT354	φ 300	720	4300	2330	2110	3300	4850
KT401	φ 350	860	4440	1250	2177	1485	2280
KT402	φ 350	860	4690	1600	2252	2610	3740
KT403	φ 350	860	5030	2050	2412	3785	6020
KT404	φ 350	860	5170	2600	2562	4960	8040

Operation Conditions								
Model	Electric power(kw)			clean water pressre	clean water consumption(L/H)	Maintenance frequency	Consumable parts replace cycle(y/h)	
	Screw axis	mixer	amount				Screw axis	Activities ring
KT131	0.18	0.2	0.38	>1kg/c m²	24	10min/day	3.4/10000	1.7/5000
KT132	0.36	0.2	0.56		48		3.4/10000	1.7/5000
KT133	0.54	0.2	0.74		72		3.4/10000	1.7/5000
KT251	.37	0.2	0.57		32		3.4/10000	1.7/5000
KT252	0.74	0.2	0.96		64		3.4/10000	1.7/5000
KT253	1.11	0.4	1.51		96		3.4/10000	1.7/5000
KT301	0.55	0.4	0.95		36		10/30000	10/30000
KT302	1.1	0.4	1.5		72		10/30000	10/30000
KT303	1.65	0.4	2.05		108		10/30000	10/30000
KT304	2.2	0.5	2.7		144		10/30000	10/30000
KT351	0.75	0.4	1.15		40		10/30000	10/30000
KT352	1.5	0.4	1.9		80		10/30000	10/30000
KT353	2.25	0.75	3		120		10/30000	10/30000
KT354	3	0.75	3.75		160		10/30000	10/30000
KT401	1.1	0.4	1.5		60		10/30000	10/30000
KT402	2.2	0.75	2.95		120		10/30000	10/30000
KT403	3.3	1.1	4.4		180		10/30000	10/30000
KT404	4.4	1.1	5.5		240		10/30000	10/30000