

● 用途 Applications

旋流沉砂器主要用于污水处理厂（站）中的预处理，用于初沉池前，细格栅后，去除污水中的较大无机颗粒。

Rotational flow sand settler is mainly used for pretreatment in sewage treatment factories (stations) to remove bigger inorganic grains in sewage before primary sedimentation tank and after fine grid.

● 工作原理及构造 Working Principle and Strucure

进水从切线方向进入池中，形成旋流，轴向流搅拌机控制水流的流速与流态，水流夹带大量粘附有机物的砂，在桨板搅拌剪切力下互相剥离，依靠砂的自身重力和旋流作用向中心砂斗下沉，剥离的有机物随轴向水流向上溢走。砂斗积聚的砂经空气提升泵或砂泵提升，砂与少量污水进入池外砂水分离器内，砂分离外排，污水回流至格栅井。

Water flows along the tangent line direction into the pool to create a whirl. Axial flow agitator controls the speed and state of water flow. By the agitating force of the oak panel, sand together with organic appendix is separated from water flow and sunk into the center sand tank by its own weight and whirl force. The separated organic substance is lifted by axial flow upwards. The sand accumulated in the sand bank is lifted by air lifting pump or sand pump. Sand and small amount of water enter into sand-water separator outside of the pool and the sand is separated and discharged. The sewage flows back to bar rack well.

● 特点 Features

1. 占地面积小。
2. 沉砂效果受水量变化影响很小。
3. 砂水分离效果好，分离出的砂子含水率低，有机物含量少，便于运输。
4. 系统自动控制洗砂、排砂周期，运行安全、可靠。
5. 操作方便、维护简单，寿命长。
6. 鼓风机采用三叶罗茨风机，噪声低。
7. 对周围环境影响很小，卫生条件好。

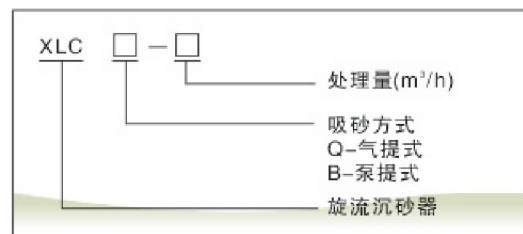
1. Covers a little area.
2. The effect of sand setting is influenced very little by the change of water flow.
3. Good effect of water/sand separation, the water ratio of sand separated from water is low, the content of organism is little and easy to transport too.
4. The system control the cycle of washing and exhausting sand automatically, so it moves safely and reliably.
5. Convenient in operation, simple in maintenance, long in service life.
6. Leaves Roots blower fan with low noise.
7. Little influence to the surroundings, and good hygiene conditions.

● 旋流沉砂器性能参数 XLC Rotational Flow Sand Settler Technical Parameters

项 目 型 号	处理量(m³/h)	叶轮转速(r/min)	功率(kW)	排砂量(L/s)	鼓风机		
					风量(m³/min)	风压(KPa)	功率(kW)
XLC180	180	12-20	1.1	7.8	1.43	34.3	1.5
XLC360	360			9.5	1.79	34.3	2.2
XLC720	720				1.75	39.2	2.2
XLC1080	1080			12-20	1.1/1.5 (进口/国产电机)	11	2.03
XLC1980	1980	1.98	53.9				4
XLC3170	3170						
XLC4750	4750	15	2.01				58.8
XLC6300	6300		2.42			69	7.5
XLC7200	7200		2.34			78	7.5
XLC9000	9000		2.65			88	11
XLC12600	12600						
XLC14400	14400						

- 注：1. 水力表面负荷:200m³/m²·h。
2. 水力停留:20-30s。
3. 进水流速:Q=(40~80%)Qmax时,V=0.6-0.9m/s;Q=Qmax时,V≥1.2m/s,Q=Qmin时,V>0.15m/s。
4. 进出水渠道夹角不小于270°。

● 型号示例 Type and Its Indication



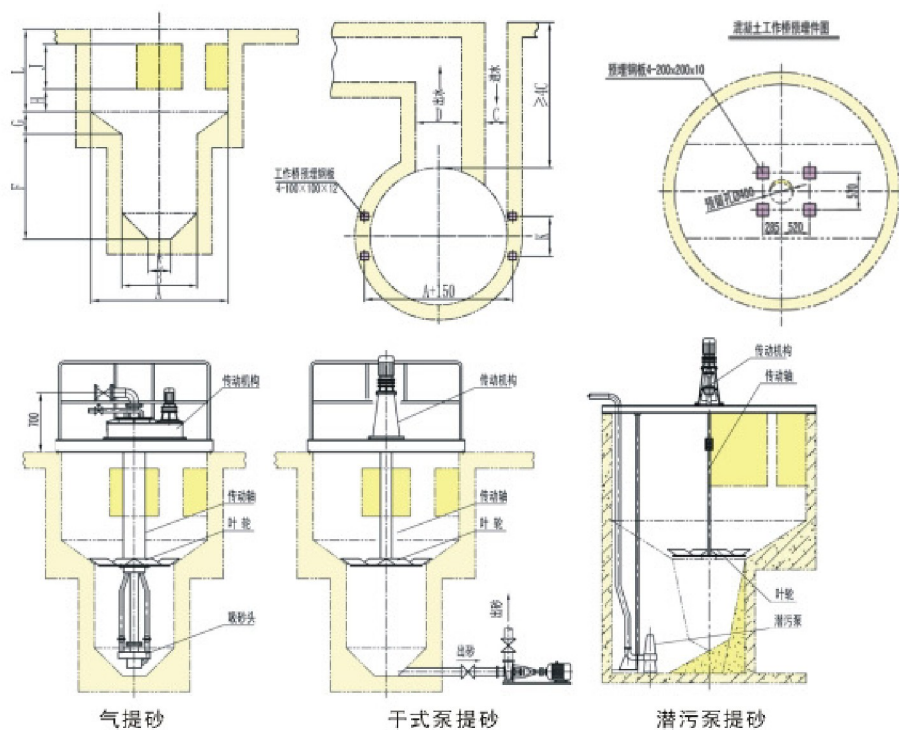


天河水务

XLC 型旋流沉砂器

TYPE-XLC ROTATIONAL FLOW SAND SETTLER

● 旋流沉砂池外形尺寸及工作方式 XLC Rotational Flow Sand Settler Shape and Size Working Way



气提式

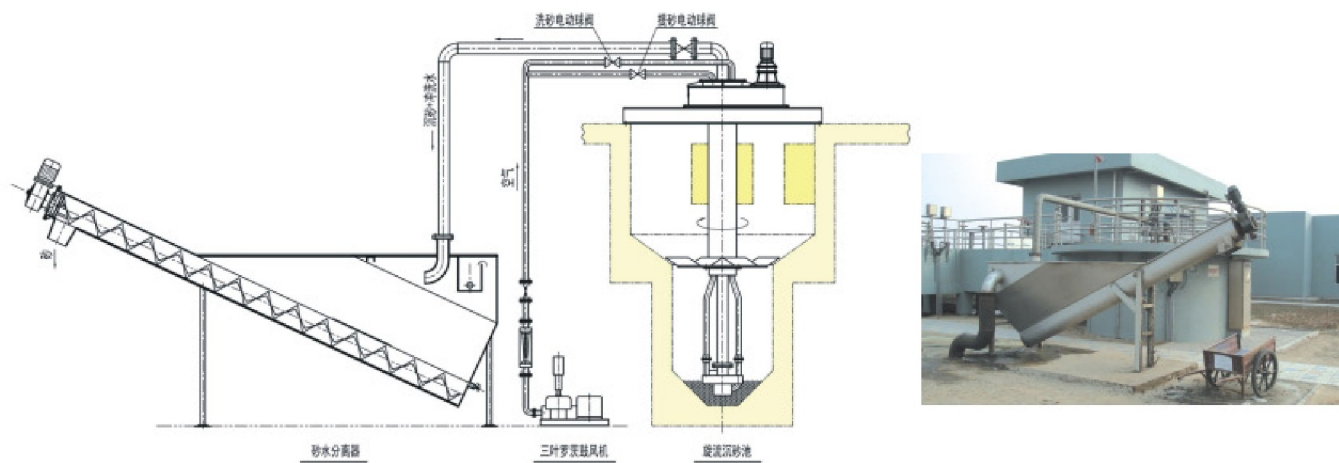


泵提式

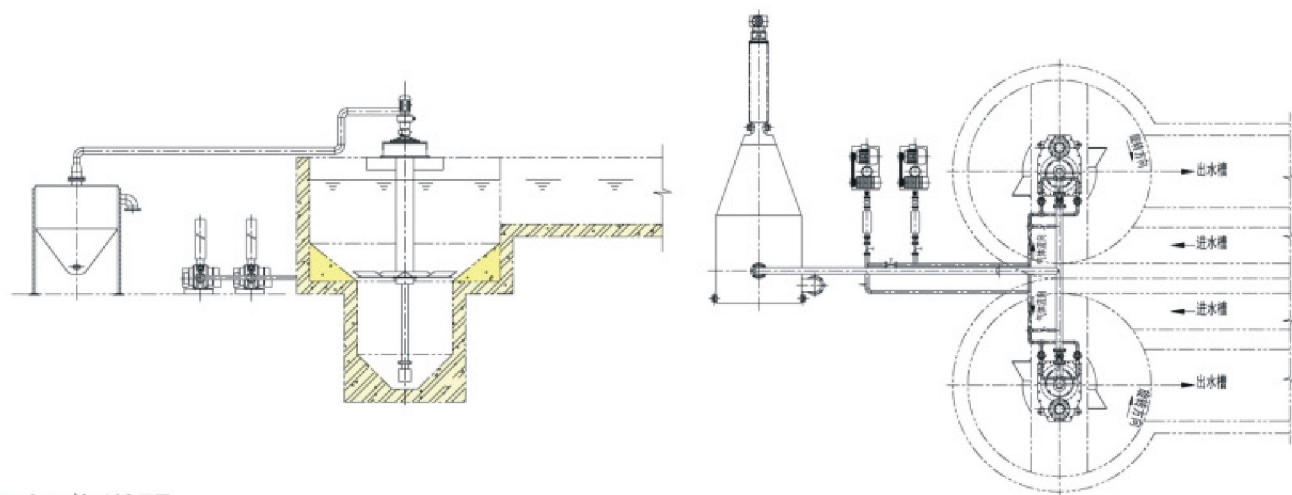
(mm)

型 号	尺 寸	A	B	C	D	E	F	G	H	J	K	L
XLC180	Φ 1830	Φ 1000		305	610	Φ 300	1400	300	300	300	1000	1100
XLC360	Φ 2130			380	760		1400	300	300	300		1100
XLC720	Φ 2430			450	900		1550	400	300	400		1150
XLC1080	Φ 3050			610	1200		1550	450	300	450		1350
XLC1980	Φ 3650	Φ 1500		750	1500	Φ 400	1700	600	510	580		1450
XLC3170	Φ 4870			1000	2000		2200	1000	510	600		1850
XLC4750	Φ 5480			1100	2200		2200	1000	610	630		1850
XLC6300	Φ 5800			1200	2400		2500	1300	760	700		1950
XLC7200	Φ 6100			1200	2400		2500	1300	760	750		1950
XLC9000	Φ 7315			1875	3350		2515	1300	760	1675		2845
XLC12600	Φ 8535			1980	3950		2895	1525	760	1980		3200
XLC14400	Φ 8645			2130	4279		3050	1625	760	2135		3430

● 旋流沉砂池工艺流程图 XLC Rotational Flow Sand Settler Pool Technological Process



● 旋流沉砂池典型布置图 XLC Rotational Flow Sand Settler Pool Typical Case Layout



● 订货说明 Requirements for Order

1. 订货时请注明配套设备的项目及数量，优先推荐采用气提式旋流沉砂池。
2. 注明设备主体所用的材质（碳钢或不锈钢）。
3. 本系统不包括管道、阀门及流量计，需要时请注明。
4. 本设备法兰按 GB9119-2000, PN0.6 制造。
5. XLC180-XLC1080 可做成钢制池整体供货，大于 XLC1080 时，可做成混凝土池或在现场焊接制成钢制池。若需要非标流量的沉砂池，需提供土建图，可据用户要求另行设计。

1. When ordering, please specify the number of equipment items and give priority to recommend the use of air-lift-type cyclone grit chamber.
2. Note the material of main body equipment (carbon steel or stainless steel).
3. The pipes, valves and flow meters are not included within this system, please note them if necessary.
4. The flanges for this equipment will be manufactured according to GB9119-2000, PN0.6.
5. Types XLC180-XLC1080 can be made into steel tank for ordering in bulk. If larger than XLC1080, it can be made into concrete tank or into steel one welded on site. If non-standard flow sand settler is needed, please offer the civil work drawing, our company can separately design it according to customers' demands.