



天河水务

ZQF 型平流组合式气浮装置

TYPE-ZQF HORIZONTAL COMBINED AIR FLOTATION EQUIPMENT

● 用途 Applications

组合气浮设备主要用于水中比重近于1.0的微细悬浮物颗粒的分离和去除。气浮法就是在水中通入大量微细气泡，使其粘附于杂质颗粒上造成整体密度 $\rho < 1$ 的状态，靠浮力使其上升至水面而使固液分离的一种净水法。由于停留时间短，气浮池的基建费用比沉淀池少，但却能获得更好的处理效果。

The combined air flotation equipment is mainly used to separate micro suspended particles whose specific gravity is close to 1.0 from water. The air flotation method is the method fills a great many of micro bubbles into water, makes the bubbles adhere to the particles, and make the whole density is below 1, the floatation force makes the solid separate from water. Because of the short resident time, the capital construction cost of the air flotation tank is less than sedimentation tank, but the treatment result is more and better.

● 工作原理 Working Principle

主要利用溶气装置产生的溶气水中的微气泡，与水中的微细悬浮颗粒粘合在一起，随气泡浮升到水面，形成浮渣，通过刮渣装置使水中微细悬浮颗粒得到去除。

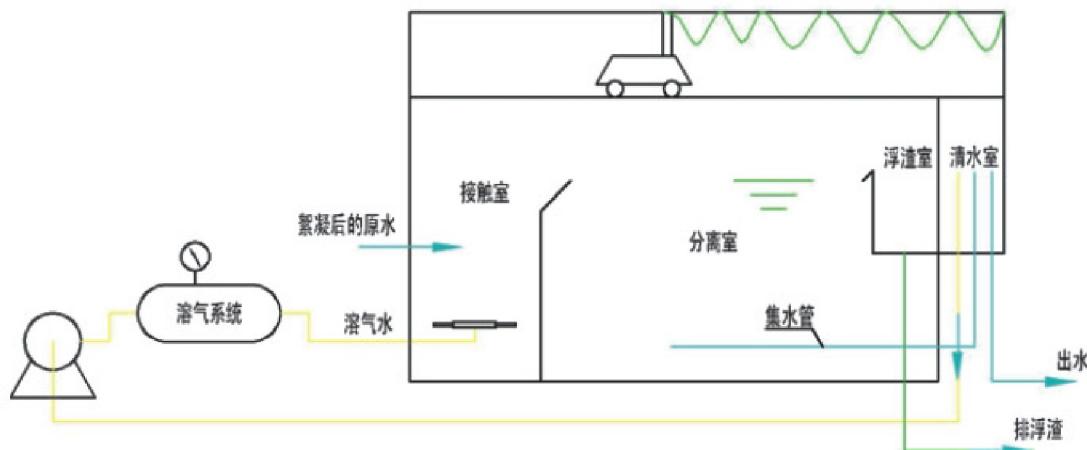
It is mainly use micro bubbles in air dissolved water made from air dissolving equipments to adhere with the micro suspended particles in water. The particles with the air bubbles go up through scumming devices to water surface and to be scum and separated.

● 特点 Features

1. 外形紧凑，占地小；
 2. 设计合理，电耗省；
 3. 溶气效率高，操作方便，维护简单；
 4. 处理效果稳定，机电仪实现了一体控制；
 5. 按不同的水质及工艺要求：
- 可提供单溶气装置或双溶气装置。
可提供溶气水压力调整系统。

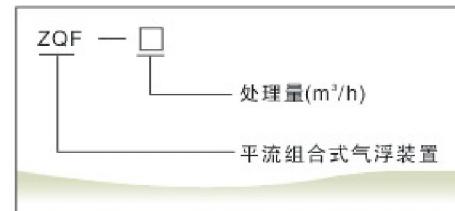
1. Outline is compact and space taking is small.
2. Design is reasonable and electricity consumption is low.
3. Air dissolving efficiency is high, operation is convenient and maintain is simple.
4. Treatment results are stable and electro-mechanic instruments are integrated control.
5. According to different water quality and process requirements can provide you with single air dissolving equipments or double air dissolving equipments and air dissolved water pressure control system.

● 工艺流程图 The Diagram of Craft Process



组合式气浮工艺流程示意图

● 型号示例 Type and Its Indication





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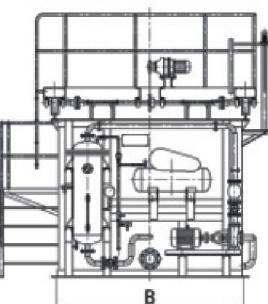
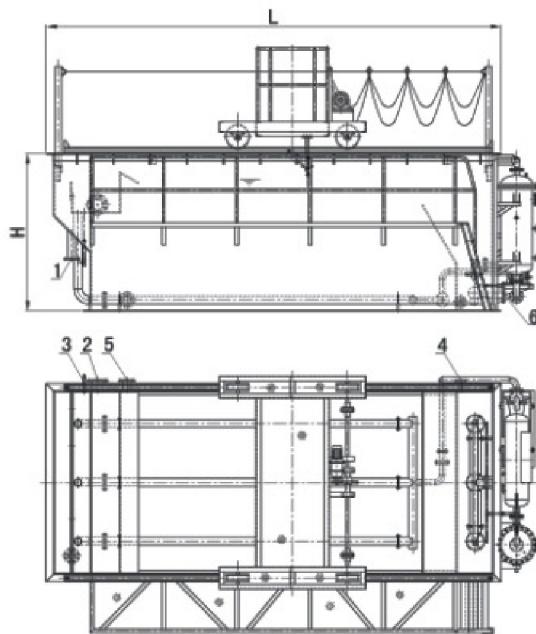
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● 技术性能参数及外形尺寸表 Technical Parameters Shape and Size

型号	处理水量 (m³/h)	溶气水量 (m³/h)	溶气泵 (kW)	空压机 (kW)	刮沫机 (kW)	L (mm)	H (mm)	B (mm)	DN1 (mm)	DN2 (mm)	DN3 (mm)	DN4 (mm)	DN5 (mm)	DN6 (mm)
ZQF-3	2~3	0.5~1	1.5	0.37	0.12	2900	1700	900	50	80	25	50	80	50
ZQF-5	3~5	1~2	2.2	0.37	0.25	2900	1700	1000	50	80	25	50	80	50
ZQF-10	5~10	2~3	3	0.37	0.25	4200	2000	1200	100	100	50	80	80	80
ZQF-15	10~15	3~5	4	0.37	0.25	4800	2000	1500	100	100	50	80	80	80
ZQF-20	10~20	5~7	4	0.75	0.25	4800	2000	1800	100	100	50	80	80	100
ZQF-30	15~30	6~10	5.5	0.75	0.25	5700	2000	2000	100	100	50	80	80	125
ZQF-40	20~40	10~13	7.5	0.75	0.37	6700	2450	2200	125	150	50	50	80	150
ZQF-50	40~50	15~20	7.5	1.5	0.37	6700	2450	2700	125	150	50	80	80	200
ZQF-70	50~70	20~25	11	1.5	0.37	8400	2450	3000	200	200	50	100	100	200
ZQF-80	60~80	25~28	15	1.5	0.55	9800	2450	3200	200	200	50	100	80	250
ZQF-110	70~110	30~35	15	1.5	0.55	10000	2550	3800	200	200	80	80	80	250

注：溶气水回流比按30%设计，水力表面负荷：3~5m³/m² · h，停留时间:15~30min



- 1. 清水出口 DN1
- 2. 污泥出口 DN2
- 3. 清水池放空口 DN3
- 4. 接触区放空口 DN4
- 5. 分离区放空口 DN5
- 6. 污水进口 DN6

● 订货说明 Requirements for Order

1. 注明主体材质。
2. 若需要加药装置、泵、阀门、流量计及检测仪表等，订货时请注明。
3. 订全套气浮系统时，请索取详细资料。

1. Note material of the primary body of the device.
2. When agent-feeding device, pump, valves, flow meter and other meters and so on are in need, note them.
3. Detailed material is on request when the complete set of the flotation system is ordered.