

# WA涡凹气浮

## WA Cavitation air flotation

### 工作原理

涡凹气浮通过曝气机的工作原理利用空气输送管底部散气叶轮的高速转动在水中形成一个真空区，液面上的空气通过曝气机输入水中去填补真空，微气泡随之产生，并以螺旋型上升到水面，空气中的氧气也随着进入了水中。

由于气水混合物和液体之间密度的不平衡，产生了一个垂直向上的浮力，将固体悬浮物带到水面。上浮过程中，微气泡会附着到悬浮物上，固体悬浮物便依靠这些气泡支撑和维持在水面上，由刮渣机刮至污泥区。

### Working principle

Cavitation air flotation forms the vacuum zone with the working principle of the aerator and by using high-speed rotation of the air-diffusing impellers in the bottom of the conveying tube, and the air on the level surface is conveyed by the aerator into the water to fill the vacuum. Microbubbles are thus generated, and rise in helical form to the water surface, and oxygen in the air also goes into water.

The unbalance of air-water mixture and liquid with respect to density has generated a vertical floating force, which brings the solid suspensions up to the water surface. During the ascending process, microbubbles will adhere to the suspensions, and the solid suspensions will be maintained on the water surface with the help of these bubbles, and then will be scraped by the scraper into the sludge zone.



## 型号意义 Meaning of the model



## 应用领域

- ▶ 石化加工业的含油废水。
- ▶ 开采产生的含油废水。
- ▶ 肉类加工业的屠宰废水。
- ▶ 乳品加工业的油脂废水。
- ▶ 纸浆制造和造纸行业的白水处理。
- ▶ 机械加工业的含油废水。

## Application field

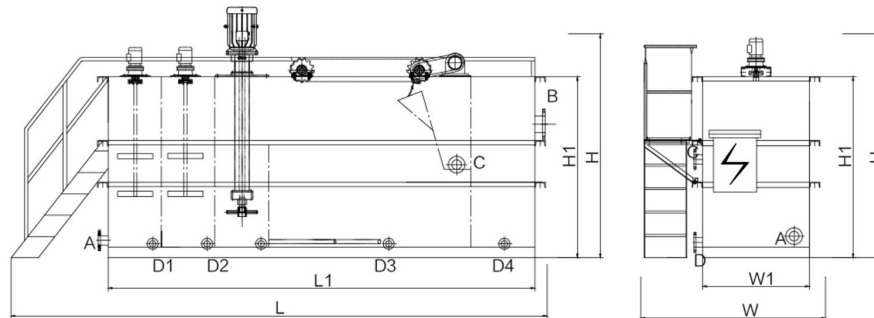
- ▶ Oil-containing wastewater in the petrochemical and processing industry.
- ▶ Oil-containing wastewater produced in the mining.
- ▶ Slaughtering wastewater in the meat processing industry.
- ▶ Grease wastewater in the dairy processing industry.
- ▶ White water treatment in the paper pulp and paper-making industry.
- ▶ Oil-containing wastewater in the machining industry.

## 技术优势

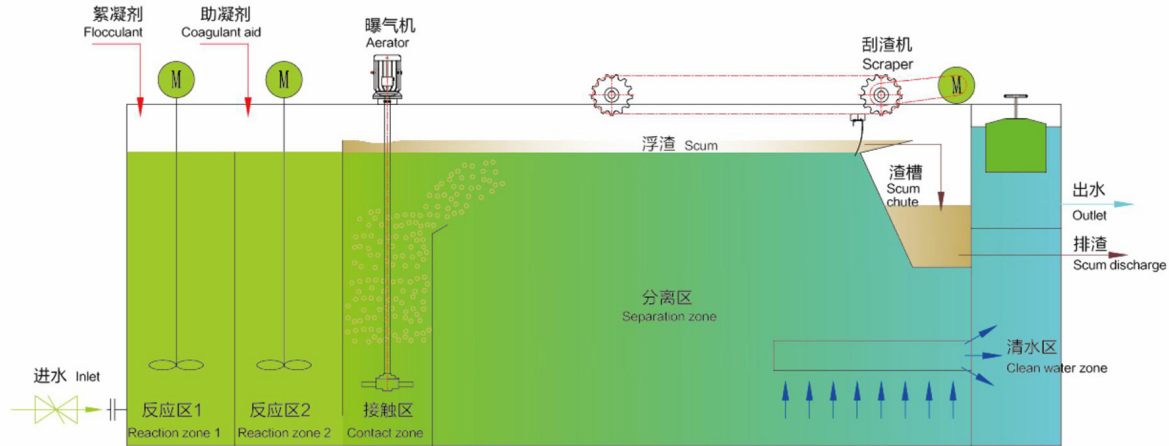
- ▶ 噪音低，槽内没有需要维修的部件。
- ▶ 不需要循环泵，所有的易损部件随地可购。
- ▶ 不需要空压机，设备整体性能好安装简单。
- ▶ 不需要溶气罐，节省占地面积20%--40%。
- ▶ 能耗及运行费用低。
- ▶ 特别适用于含油废水处理。

## Technical advantages

- ▶ Low noise, and without components that need maintenance in the tank.
- ▶ Without the need of circulation pump, all wearing parts can be purchased at any place.
- ▶ Without the need of air compressor, the equipment has generally good performance and is simple for installation.
- ▶ Without the need of air dissolving tank, saving floor space by 20%–40%.
- ▶ Low energy consumption and low operation cost.
- ▶ Particularly suitable for the treatment of the oil-containing wastewater.



WA涡凹气浮  
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涡凹气浮流程图  
WA Cavitation air flotation Process Flow Chart

### 型号规格及相关技术参数 Model specifications and related technical parameters

型号 Model	处理量 Capacity m <sup>3</sup> /h	功率表 Power KW			规格尺寸 Dimension (m)			管口表DN (Nozzle list)			
		曝气机 Aeration machine	刮渣机 Slag scraper	搅拌机 Mixer	L/L1	W/W1	H/H1	进水口inlet (A)	出水口Outlet (B)	排渣口 Sludge outlet (C)	放空口 Empty mouth (D)
WA-5	~5	1.5	0.55	0.75	4.7/4.0	1.7/1.0	2.0/1.4	80	80	80	50
WA-10	~10	2.2	0.55	0.75	5.7/5.0	1.9/1.2	2.0/1.4	100	100	100	80
WA-15	~15	2.2	0.55	0.75	5.7/5.0	2.0/1.3	2.0/1.4	125	125	125	80
WA-20	~20	2.2	0.55	0.75	5.9/5.2	2.0/1.3	2.0/1.4	150	150	150	80
WA-30	~30	2.2	0.55	0.75	6.7/6.0	2.4/1.6	2.3/1.7	150	150	150	80
WA-40	~40	2.2/4.4	0.55	1.1	7.8/7.0	2.4/1.6	2.4/1.8	200	200	150	80
WA-50	~50	4.4	0.55	1.1	8.8/7.5	2.6/1.8	2.4/1.8	200	200	150	80
WA-70	~70	4.4	0.55	1.1	9.9/9.0	3.2/2.4	2.4/1.8	200	200	150	80
WA-100	~100	4.4	0.75	1.1	10.3/9.5	3.2/2.4	2.6/1.8	200	200	200	80
WA-120	~120	6.6	0.75	1.5	10.8/10.0	3.2/2.4	2.6/1.8	200	200	200	80
WA-150	~150	6.6	0.75	1.5	12.0/11.0	3.2/2.4	2.6/1.8	250	250	200	100
WA-200	~200	8.8	0.75	2.2	14.5/13.5	3.4/2.6	2.6/1.8	250	250	250	100