



..... FLOTATION UNIT

R&O



DISSOLVED AIR FLOTATION UNIT

- After the sieving stage, the wastewater is sent into the flotation unit. Micro-bubbles are injected under pressure into the liquid. These microscopic bubbles, with a diameter of between 20 and 50 µm, rise to the surface and form a scum layer to be scraped off.

OPERATING PRINCIPLE

It is a given that air diffusion improves gravitational separation. The air bubbles attach to the particles through the effect of surface tension, an effect that is all the more pronounced the smaller the bubble. The flotation unit performance can be improved by adding a physical-chemical treatment (coagulation, flocculation) upstream.

BENEFITS

- ✓ Small footprint
- ✓ Cost-effective
- ✓ Easy to install and implement
- ✓ High reliability of the CE-certified pressurisation system
- ✓ Extremely easy adjustment, commissioning and operation
- ✓ Robustness: 304 or 316 L stainless steel
- ✓ Possible full process

MAIN APPLICATIONS

- ▶ Pretreatment of wastewater
 - Food industry:
 - Abattoirs
 - Meat processing
 - Dairy
 - Cheese factories
 - Patisseries
 - Other industries:
 - Biotechnologies
 - Cosmetics
 - Chemicals
 - Paper works
 - Textiles
- ▶ Sludge thickening
- ▶ Tertiary sewage treatment



SPECIFICATIONS

R&O Dépollution offers a wide range of processes able to treat throughputs of between 3.5 m³/h and 150 m³/h, for a scraped surface of 1.8 to 22 m² and a volume of 1.5 to 39 m³ (full dimensional data sheet available for further data).

The dimensions of the flotation unit depend on the characteristics of the effluent, the hydraulic head, the mass load and the retention time in the flotation unit. The suspended solids (SS) load must be below 12 kg/m²/h for grease removal applications and below 6 kg/m²/h for sludge thickening.



MAXIMUM REMOVAL

PHYSICAL FLOTATION

Grease: 85%

BOD₅ and COD: 45%

SS: 85%

PHYSICAL-CHEMICAL FLOTATION

Grease: 95%.

BOD₅ and COD: 75%.

SS: 95%

