

# ALMA NeoDAF HDED

Dissolved air flotation plant for the treatment of industrial wastewater



The **ALMA NeoDAF HDED** is a state-of-the-art dissolved air flotation system that uses the ALMA Bubble Booster for extremely energy-efficient operation. The flotation reactor is made of high-quality 41.411 stainless steel and is therefore particularly durable. With the help of neutralization precipitation and flocculation, wastewater constituents such as COD, hydrocarbons, heavy metals, AOX or lipophilic substances are flocculated and bound in the flotante sludge.

This innovative system is controlled and monitored by the ALMA Vision software, based on the Siemens TIA Portal. The dissolved air flotation system is characterized in particular by its energy-efficient air saturation system and the patented control system for dosing the operating media. The resulting flotante sludge proves to be extremely valuable, especially in the context of wastewater from the food industry. By using our biodegradable polymers (flocculants), the flotante sludge can be optimally used in biogas reactors.

## Applications

- Dairies and cheese factories
- Industrial wastewater from food and non-food
- Pre- and partial-flow treatment
- Woodworking industry



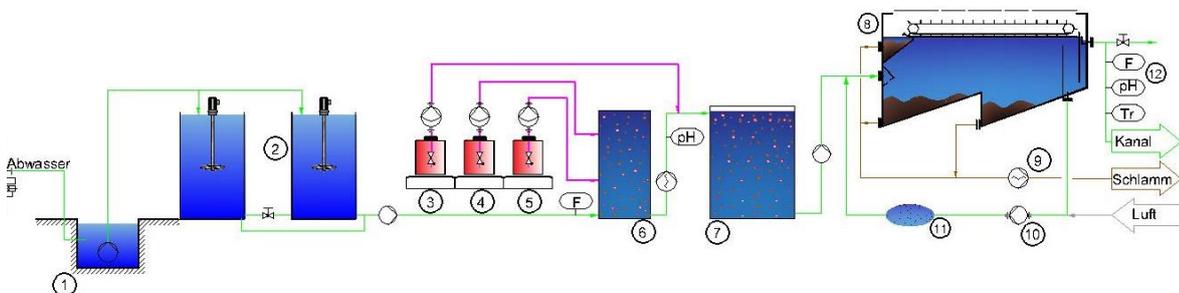
# ALMAWATECH

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## Technical versions

Type	Flow rate	Dimension L x W x H [mm]	Weight [kg]	Air flow	Connected power
10.000	12 m <sup>3</sup> /h	2.370x1.270x1.780	approx. 2,700	400 NI/h	0.30 kW/h/m <sup>3</sup>
20.000	22 m <sup>3</sup> /h	4.000x1.670x2.100	approx. 6,600	650 NI/h	0.25 kW/h/m <sup>3</sup>
40.000	45 m <sup>3</sup> /h	6.000x2.200x2.200	approx. 12,700	1.400 NI/h	0.15 kW/h/m <sup>3</sup>
80.000	80 m <sup>3</sup> /h	10.000x2.220x2.400	approx. 32,000	2.200 NI/h	0.10 kW/h/m <sup>3</sup>
100.000	100 m <sup>3</sup> /h	13.000x2.220x2.400	approx. 42,400	2.600 NI/h	0.10 kW/h/m <sup>3</sup>
120.000	120 m <sup>3</sup> /h	13.000x2.700x2.400	approx. 55,300	3.400 NI/h	0.09 kW/h/m <sup>3</sup>

## Process flow diagram



1. Pump sump	4. Neutralizing agent	7. Storage tray	10. Process Pump
2. Stacking container	5. Coagulants	8. Flotation Chamber	11. Bubble Booster System
3. Flocculants	6. Flocculator Alma CP	9. Slurry pump	12. Final inspection

## Specifications

- Dissolved air flotation optionally with upstream ALMACP flocculator and ALMA bubble booster
- Low chemical requirements thanks to ALMAFloc products
- Inline dosing system
- Integrated pH neutralization
- Throughput: from 12 to 120 m<sup>3</sup>/h
- Bubble booster for microbubble generation

## Advantages

- Little need for space
- High air saturation due to multiphase pump
- Robust stainless steel construction
- Non-clogging air saturation valves
- Sediment extraction at the bottom
- Variable microbubble sizes adjustable, 10 to 70 µm
- Self-cleaning bubble booster valve

## Reference plant





# ALMAWATECH

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ALMAWATECH GmbH - Your plant manufacturer and service provider in industrial water and wastewater technology offers everything from a single source

**Analysis &  
Optimization**

**Planning &  
Consulting**

**Water  
chemicals**

**Operations  
Management**



**Plant engineering**

## Wastewater and process water

-  Treatment for direct and indirect dischargers
-  Pre- and post-treatment of wastewater
-  Process water Recycling
-  Ultrapure water production
-  Individual system solutions for all branches of industry

## Procedure

-  Biological (aerobic/ anaerobic/ anoxic)
-  Precipitation, flocculation and neutralization
-  Filtration & reverse osmosis
-  Oxidation & hygienization
-  Modular systems

Specialized water chemicals from ALMAWATECH for wastewater applications, cooling water circuits, membrane systems and boiler plants.