



## Flotation Unit (DAF)

with material of manufacture completely by stainless steel AISI 304L



### Applications

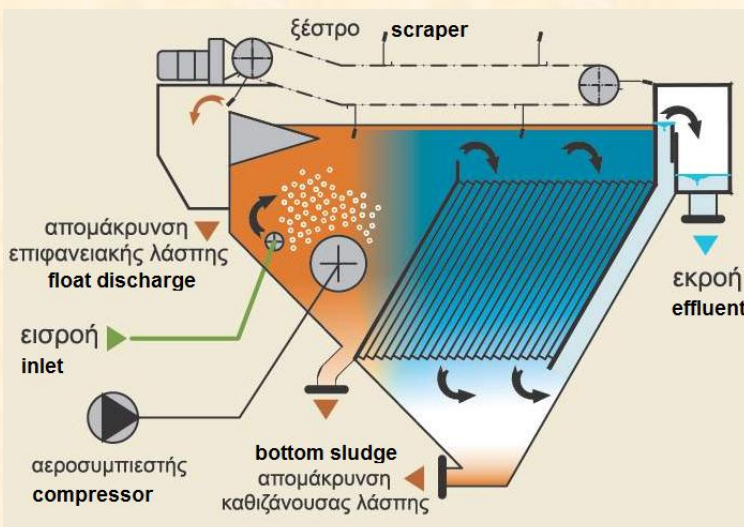
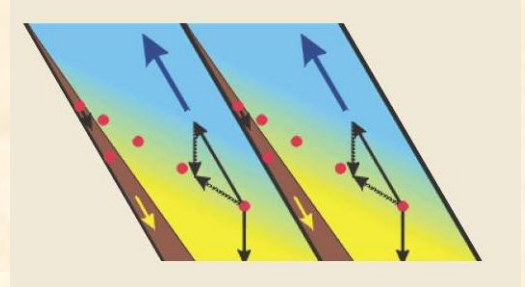
Finds application in wastewater pretreatment facilities such as:

- ✓ Slaughterhouses
- ✓ Meat Processing industries
- ✓ Fish processing industries
- ✓ Food processing industries
- ✓ Milk processing industries
- ✓ Paper industries
- ✓ Chemical industries
- ✓ Municipal wastewater treatment plants

The flotation system is characterized by high efficiency based on principle of cross-flow through a package of lamella.

The rate of separation is determined by the flow and the active surface.

Increasing the contact area obtained low surface loads and large performances separation of solids.



### Characteristics

- Very compact prefabricated unit
- Extremely large effective area separation over any other system, thus the low investment costs
- High degree of solid separation
- simple of operation
- It not required virtually no maintenance
- Stainless steel for long during of life



includes:

- ✓ flocculation tank with stirring *or alternative meander type of flocculant* by stainless pipe connections and with dosing of chemicals
- ✓ flotation tank
- ✓ surface scraper for scan and disposal of sludge
- ✓ system of production and diffusion of microbubbles
- ✓ Stainless switchgear with the necessary automation operating of unit



**TECHNICAL NOTICES**

The system of diffusion which applies to floating unit it's a new technology and is tested with great success and with excellent results.

The new system eliminates all that equipment includes a standard classical flotation unit (DAF) as:

High-pressure pump for the recirculation of water from the outlet, which usually contains solid and is extremely problematic for the pump, pressure vessel, valves, check valve, etc.

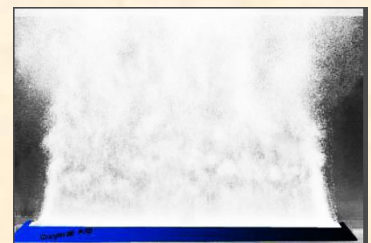
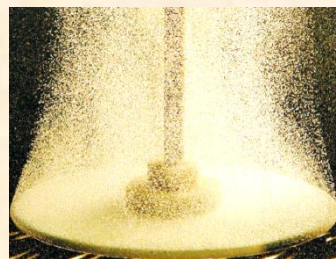
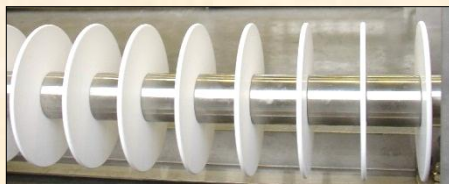
All these are replaced with a simple feed system microbubble diffusers originating from specific pore diffusion of 2 microns ( $\mu\text{m}$ ) and a compressor for providing compressed air.



microbubble diffuser

The advantages are:

- Smooth operation without blockage problems of pipes, pumps, pressure vessels as occurs in usual units DAF.
- The diffusion here is using a special diffuser at a pressure only 1.5 to 3 bar with a minimum required quantity air.
- Production of microbubbles with a diameter of 50 to 100 $\mu\text{m}$  as opposed to the expansion of air units from 5 bar to which the diameter of the bubble is about the size of 500  $\mu\text{m}$
- Minimum to insignificant energy consumption, if not required pump recirculating water that is high pressure and high power (energy intensive).
- Minimal use of chemicals, since fats and solids due to the microbubbles can be separated on the surface without using chemicals.



**Standard Series**

Model	Supplies (m <sup>3</sup> /h)	Electivity area (m <sup>2</sup> )	Surface charge (m <sup>3</sup> /m <sup>2</sup> .h)
FLOT-10	10	8,7	1,15
FLOT-20	20	14	1,4
FLOT-30	30	20	1,5
FLOT-50	50	35	1,4
FLOT-70	70	50	1,4

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