

idraflot.com



# IDRAFLOT®

Flotation Technology

**WATER TECHNOLOGIES**

## Technology

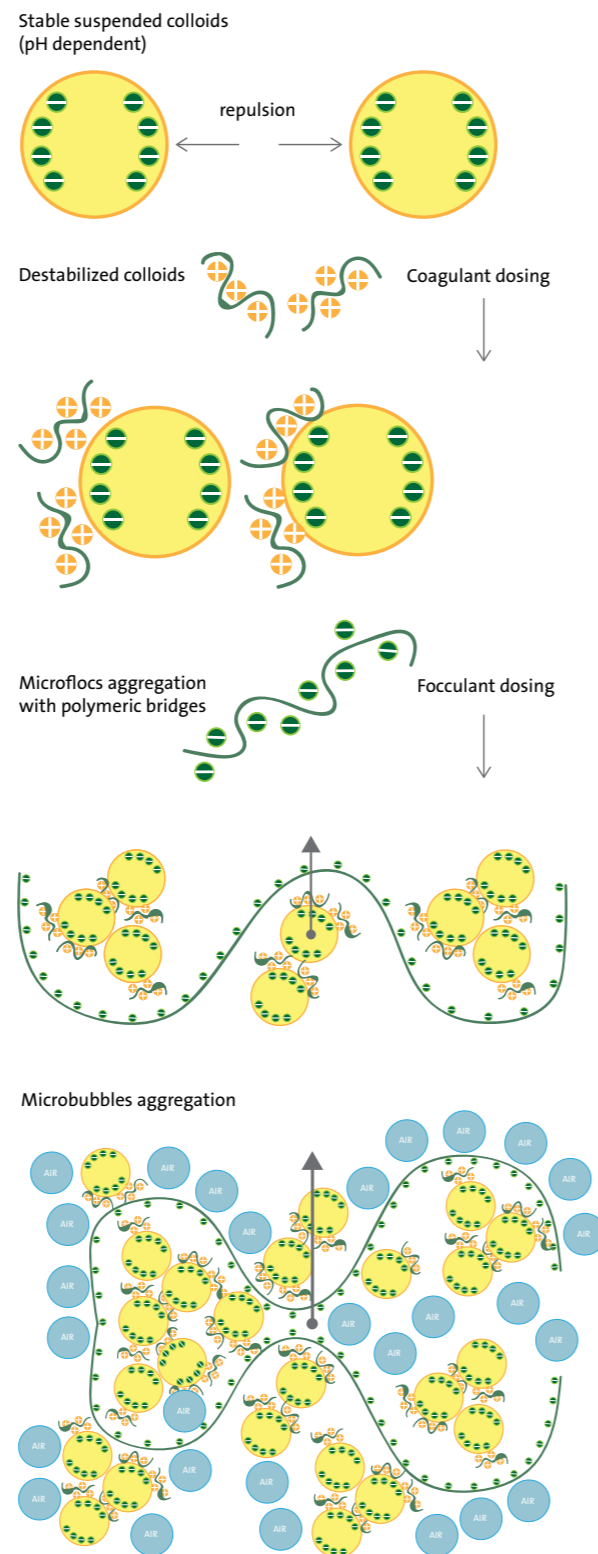
Flotation is a physical process where water is separated from the suspended solids to be reused.

Flotation consists of separating solids from the water phase by attaching the solids to fine air bubbles to decrease the density of the particles which float instead of sinking. The rising solids are called the “float” and are skimmed off the surface and further processed in the sludge train.

Chemicals can be added to improve the separation: first for coagulation and then for flocculation.

The type of flotation used by IDRAFLOT® is the Dissolved Air Flotation (DAF), in which the suspension is saturated with air at high pressure. Bubbles are released to the water and will attach to the suspended solids.

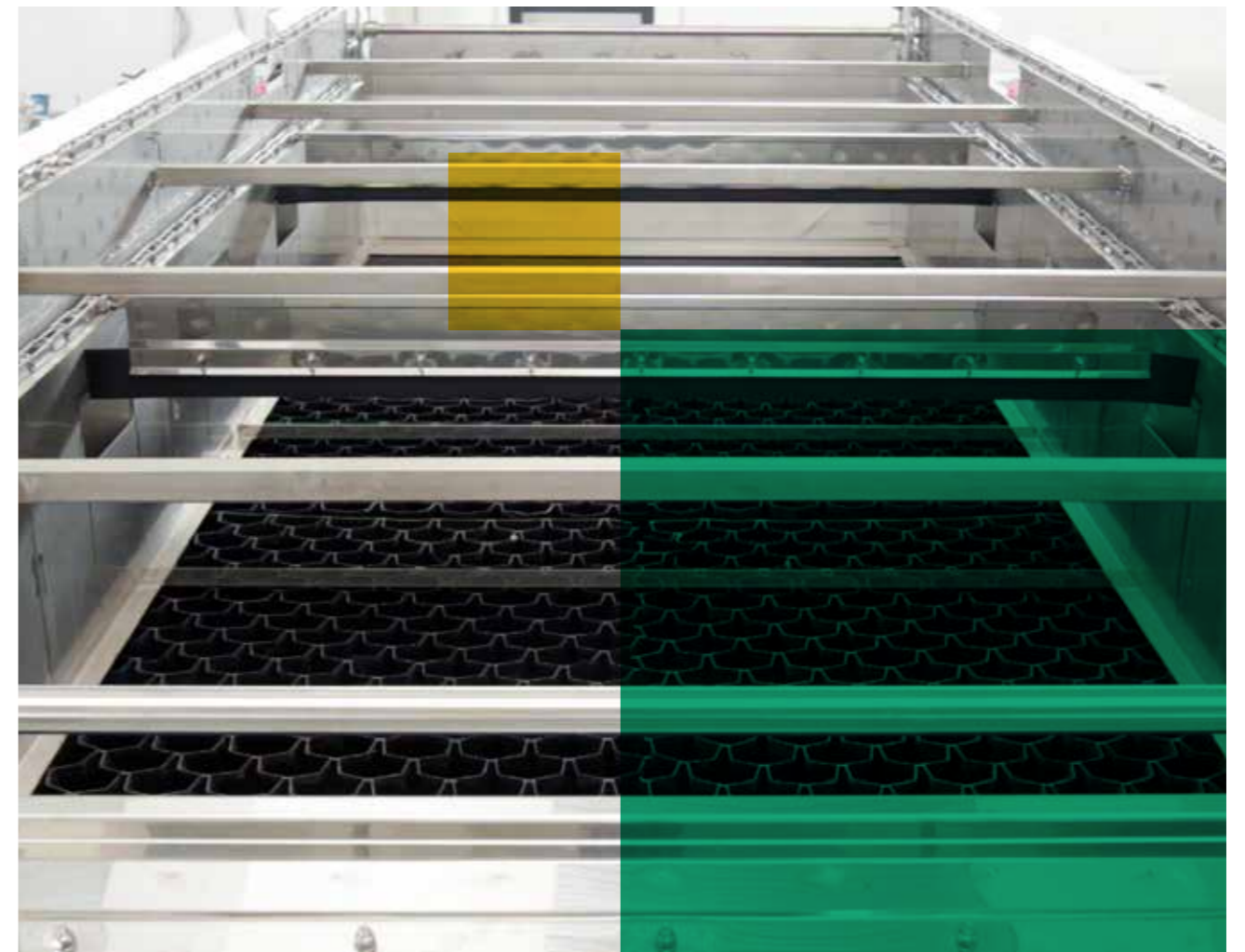
The bubbles from a DAF system are much smaller than in other types of flotation systems and better adhere to the solids. This makes IDRAFLOT® DAFs one of the most efficient flotation options of wastewater treatment.



# IDRAFLOT®

Flotation Technology  
since 1978

An innovative and effective  
water mixing device  
with a modular design.



The new modular design allows for faster delivery,  
easier implementation, and reduced costs.

## An innovative and effective water mixing device

Consistent water mixing that is not achievable with traditional DAF systems.

IDRAFLOT® is not only a compact unit, but also offers many additional advantages.

IDRAFLOT® units allow for enhanced thickening and clarification performance. This creates an increased removal of insoluble COD, suspended solids, and FOG (fats, oils, and grease).

IDRAFLOT® flotation units are protected by three patents. They are intended to assure a perfect mixing of the waste with saturated water and a uniform distribution of the water flow along the entire surface of the unit.

IDRAFLOT® flotation units have mixing volumes intended to optimize the process and the unit's total capacity.

IDRAFLOT® Optimization Benefits Include:

- ..... reduce chemical additive dosing
- ..... reduce the saturated water flow rate (up to 50% less compared to the conventional models)
- ..... avoid hydraulic short circuits
- ..... reduce the unit's operational costs

Technical Data					
Units	Modules	Treatment capacity		Dimensions LxDxH (mm)	Dimensions LxDxH (inch)
		(m³/h)	(gpm)		
IFS 7	-	5-10	22-44	4600 x 1910 x 2260	181 x 75 x 89
IFS 15	-	6-25	26-110	5200 x 2040 x 2300	205 x 80 x 91
IFS 40	2	28-80	123-352	7170 x 2640 x 3260	282 x 104 x 128
IFS 60	3	42-120	185-528	8170 x 2640 x 3260	322 x 104 x 128
IFS 80	4	56-160	246-704	9240 x 2640 x 3260	364 x 104 x 128
IFS 100	5	70-200	308-880	10.170 x 2750 x 3260	400 x 108 x 128
IFS 120	6	80-240	352-1057	11.170 x 2750 x 3260	440 x 108 x 128
IFS 140	7	100-280	440-1233	12.220 x 2750 x 3260	481 x 108 x 128
IFS 180	9	126-360	555-1585	14.290 x 2830 x 3260	563 x 111 x 128
IFS 200	10	140-400	616-1761	15.290 x 2830 x 3260	602 x 111 x 128
IFS 240	12	168-480	740-2113	17.290 x 2830 x 3260	681 x 111 x 128

## A Unique Modular Design

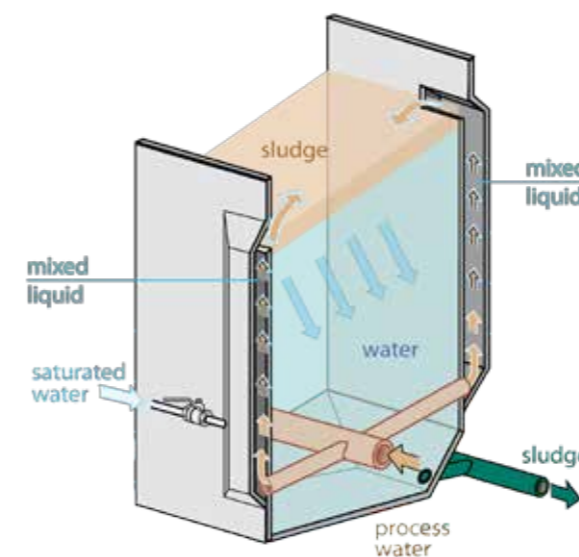
Advanced engineering has made it possible to create a powerful and flexible DAF solution.

The unit's tank is designed to with a series of modules. This allows for an even distribution of air throughout the unit, when compared to other DAFs that utilize a single tank and distribute the air from a single location. The opportunity to replicate the same module along the whole

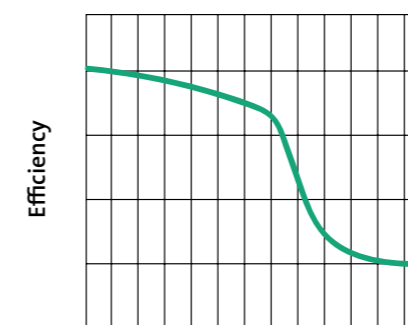
The compact and modular structure creates ease and flexibility when transporting, expanding, and maintaining.

structure of the unit gives benefits also in terms of consistency and reliability of the treatment process.

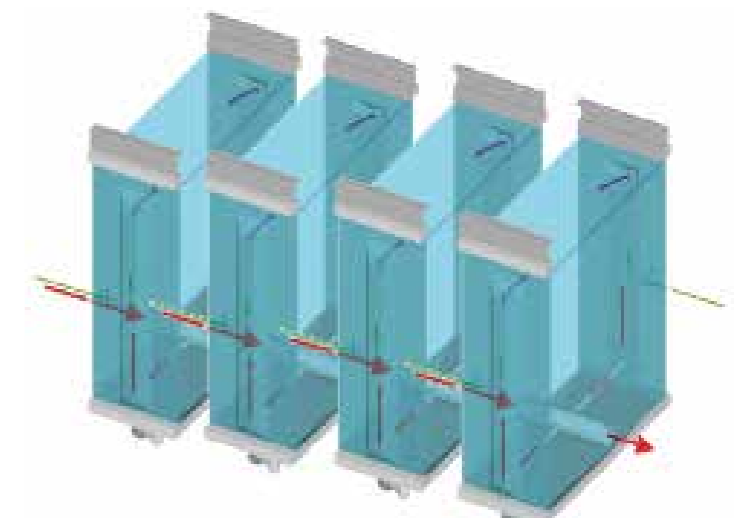
A tank designed by modules allows the distribution of the air not just from one point, as in the traditional systems, but along the whole surface of the unit and from both sides, at different heights based on the specific treatment needs. Each module acts as a double flotation unit.



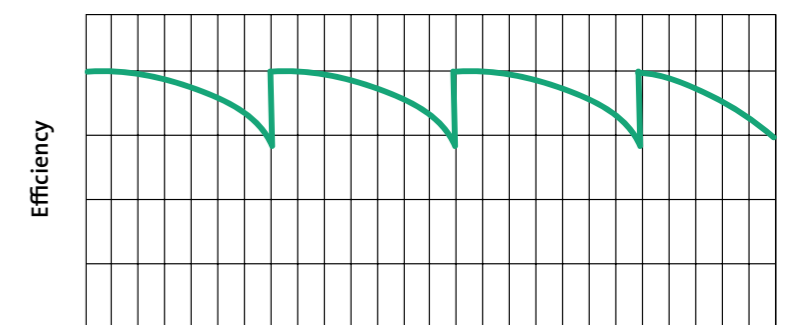
One feeding system



Length of the unit



Multiple feeding system



Length of the unit

## Industries

IDRAFLOT® is an excellent solution where water clarification and solid separation are required.

Food & Beverage

Healthcare (Pharma & Cosmetics)

Municipal

Pulp & Paper

Mining

Waste disposal centers

## Water Impact Index

IDRAFLOT® is a water treatment technological solution designed to face the new sustainability challenges in terms of water management.

Learn more on [www.idraflot.com](http://www.idraflot.com)

## Applications

Effective for biological treatment and thickening of activated sludge from biological plants.

Wastewater Treatment Process

Pre-treatment

Wastewater Treatment Process

Tertiary Treatment (P removal)

Wastewater Treatment Process Sludge

Thickening

MBBR Post Treatment Sludge Separation

Rain water, floor cleaning

Pure Water and Wastewater

Filter Back Wash treatment

## Materials



The corrosion resistance is one of the IDRAFLOT® basic characteristics.

That's why all IDRAFLOT® flotation units use AISI 304, 316 and Superduplex (in case of seawater / high salinity applications).



# Resourcing the world

**Veolia Water Technologies Italia**

Via Pra' di Risi, 3 • 33080 Zoppola (PN) • Italy  
tel. +(39) 0434 516311 • fax +(39) 0434 516310

[www.idraflot.com](http://www.idraflot.com)