



# Dissolved Air Flotation

Brochure



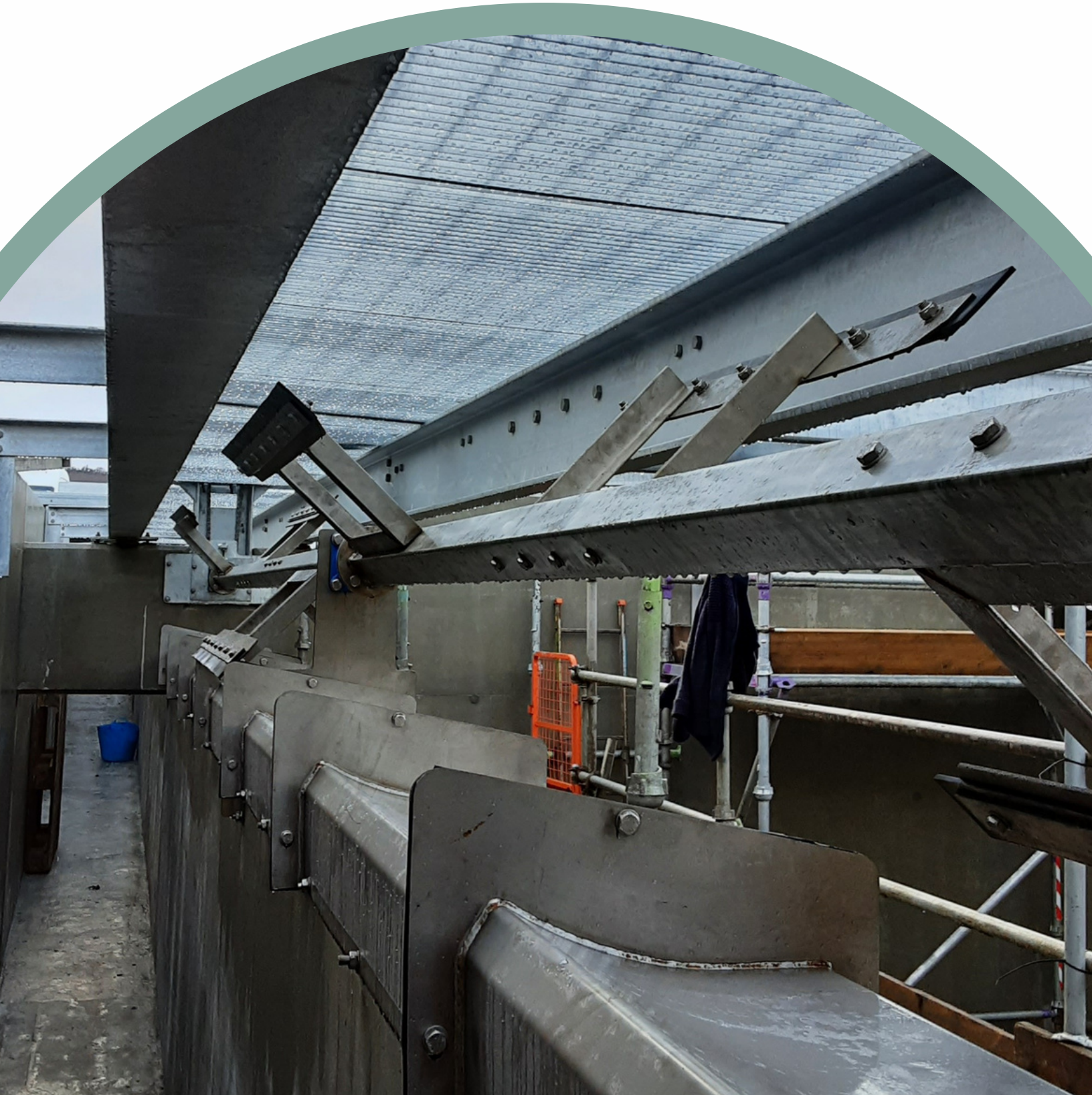
Colloide

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# Dissolved Air Flotation Designed by experts



# Why choose Our Systems

Colloide's high rate Dissolved Air Flotation ('DAF') unit has been developed using the most advanced solids/liquid separation techniques available.

The performance of our DAF unit is superior to that of similar or alternative technologies, both as a clarifier of primary or secondary effluent waters and as a thickener for biological sludge.

The simplicity of the design of the AQUA-DAF system is at the core of its high operational reliability and its remarkable versatility.

The circular low head geometry of the cell, innovative hydrodynamics of fluids entering and exiting the cell, and the proven efficiency of the floating sludge removal system all contribute to the excellent performance of our DAF system.





# Discover the ultimate **DAF Process**



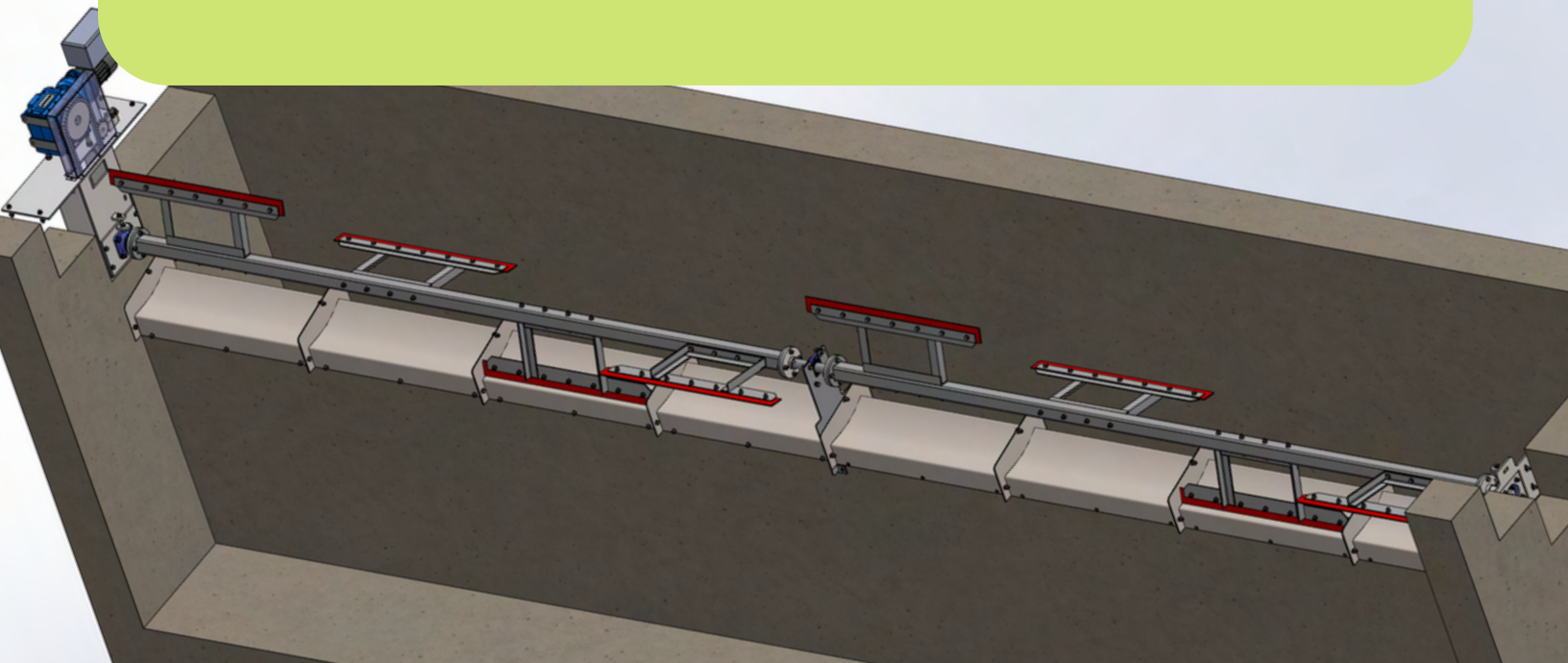
# Technical Details

## How The System Works

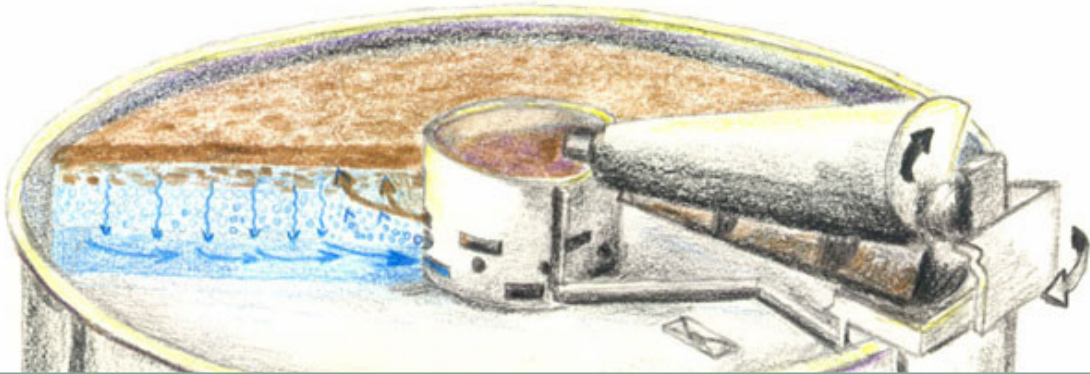
### Summary of the DAF process:



- The feed stream, after saturation with dissolved air, is introduced into the flotation cell.
- The flow spreads uniformly across the tank.
- The micro air bubbles adhere to the suspended particles creating a floating action on these particles. A thick blanket is formed by the solids at the surface of the cell. These solids are removed using a scum removal system.
- Before reaching the outlet slots, the under-natant is forced to pass through a filtering bed consisting of a relatively deep section of micro-bubbles.
- Any heavy solids which might have settled are conveyed into a sump by the bottom scraper.



# High Tolerance Flow and Solid Input Variations



## Typical applications:

- Primary / secondary clarification in wastewater treatment plants
- Sludge thickening
- Refinery oil wastewaters treatment
- Paper industry: white water clarification / fibre recovery
- Surface waters clarification
- Algae removal
- Oil and grease removal
- Juice clarification (winery and beverage industry)

## Optional features:

- Construction in 316 and other stainless steel grades
- FRP / titanium construction for special applications
- Installation into an existing / new concrete basin
- Sludge blanket thickness control system
- Tank coverage



# Efficient Performance Unit Reliable and Versatile





# Our Experience

We understand each WWTW is unique with bespoke requirements. That is why for over 20 years our capabilities have expanded to enable the delivery of a wide range of options.



# Our Capabilities Meet Your Needs

We understand each project is unique with bespoke requirements. That is why for 20 years our capabilities have expanded to enable the delivery of a wide range of options.

## Capabilities

### Supply chain

We have sourced suppliers and developed a reliable relationship, with suppliers based across the UK and Ireland. Our supply chain is accredited to high Quality, Health and Safety and Environmental standards.

We have the capability to deliver your requirements anywhere across the UK, Ireland, Scotland, and Wales.

### Location

### Availability

We have the capacity to engineer equipment on a short lead time, due to our ability to design and build off-site.

Our standardised design can be adapted to meet bespoke requirements for drinking water and wastewater sites.

### Flexibility & adaptability



# Our range of DAF Unit Options

We have a broad range of options that will be compatible with your requirements.

Our technologies and equipment are factory tested prior to delivery to site ensuring there are minimal delays for the onsite testing and commissioning stage.

**Contact our sales team for further info on all specifications.**



# Our Product Range



Activated Sludge Treatment



Anaerobic Digestion



Biomass Heating and Heat Pumps



Chemical Dosing



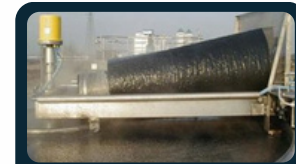
Bridge Scraper Systems



Clarifier Systems



Control Systems



DAF



Deep Bed Sand Filters



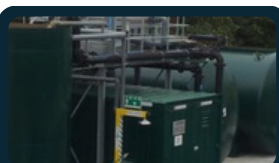
District Heating & Energy Centres



Dynamic Sand Filters



MBBR



MBR



Membrane Filtration



Multi Cell Media Filtration



Pressure Filters



Pumping Stations



SBR



Tekleen Filters



Rapid Gravity Filters





# Colloide



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