Dial-a-Bubble.

The “Dial-a-Bubble,” the latest improvement to the Zephyr, improves equipment performance by allowing the user to adjust the size and volume of air bubbles produced. A separate “flow stopper” chamber reduces mixing to allow the unit to be used in the same tank as the skimmer.

Fluence offers water and wastewater aeration technologies and the expertise to help you select and apply the equipment best suited for your application. Let our technical experts assist you in proper sizing, layout, and operation of your aeration system.

Mounting Accessories

The Zephyr Induced Air Flotation System has flexible mounting options including float-mounted, wall-mounted and tank-mounted.

Float-mounted:

- deal for positioning the unit within a basin
- ideal for fluctuating water levels
- provides access for adjusting the angle of the Zephyr unit into the basin
- provides increased safety with optional decking

Wall-mounted:

- includes a 180-degree swivel pad to allow the aerator to be pointed in various directions (90 degrees each direction from center).
- 304 stainless steel used for all parts.

About Fluence Corporation Limited (ASX: FLC)

Fluence is a leader in the decentralized water, wastewater and reuse treatment markets, setting the industry pace with its Smart Products Solutions, including Aspiral™, NIROBOX™ and SUBRE. Fluence offers an integrated range of services across the complete water cycle, from early stage evaluation, through design and delivery to ongoing support and optimization of water related assets, as well as Build Own Operate Transfer (BOOT) and other recurring revenue solutions. With established operations in North America, South America, the Middle East, Europe and China, Fluence has experience operating in over 70 countries worldwide and enables businesses and communities worldwide to maximize their water resources.

Further information can be found at https://www.fluencecorp.com/.

ZEPHYR™

INDUCED AIR FLOTATION SYSTEM

High Efficiency Air Flotation

Wastewaters containing high levels of fats, oils and grease (FOG) require a pretreatment phase to help separate suspended solids from the rest of the wastewater. The Zephyr Induced Air Flotation System (IAF) separates FOG from the liquid, which increases treatment plant efficiency, reduces disposal costs, and provides a recovery technique for what once was a waste product. In many instances, the by-products recovered are valuable and can either be recycled or sold, further reducing plant costs.

Theory of Operation

The Zephyr features a diffuser disc that incorporates fine holes near its perimeter for ultra-fine bubble diffusion into the liquid. The motor spins the unique diffuser disc, creating a low-pressure zone at the disc's diffuser ports which draws air or gas from above the liquid surface. That air or gas then proceeds down through the draft tube, into the disc and out of the submerged diffuser ports. As each bubble exits through a hole in the edge of the diffuser disc, the spinning disc shears it into microscopic air bubble fragments measuring from 10-100 microns in diameter. These air bubble fragments adhere to minute solids such as oil and grease. The bubbles slowly rise to the surface around the unit, bringing the solids to the surface.

Applications

The Zephyr is ideal for flotation and phase separation applications or situations where air flotation is needed with minimum mixing or turbulence. In addition to flotation, the Zephyr can be used to introduce gases into a liquid. Because it creates ultra-fine, slow rising bubbles, it is also an ideal method for gas injection. Zephyr Air Flotation Systems are extremely efficient in:

- pulp and paper mills
- petrochemical industries
- poultry, meat, vegetable, and oil processing industries
- municipal wastewater treatment

Features

The Zephyr induced-air floatation system has an array of features, including:

- Stainless-steel construction for the ultimate in corrosion and chemical resistance
- Solid shaft and a patented sealed-bearing design mean virtually no maintenance
- Standardized components, including motors, bearings, and couplings
- Easy disassembly for efficient cleaning with soap and hot water
- Available from 2-10HP

fluence Value from Water