



# Sanitaire Gold Series Diffuser

MINIMIZING POWER COSTS, MAXIMIZING RELIABILITY



**SANITAIRE**

a xylem brand



# Engineered Efficiency: Minimizing Power Costs

**With over 50% of the energy consumed by aeration in wastewater treatment, your interest in energy efficiency improvement becomes our obsession in enhancing SOTE (Standard Oxygen Transfer Efficiency) to the greatest degree possible.** Creating fine bubbles is only half the challenge. High diffuser and system headloss, uneven airflow distribution and uneven floor coverage can negate the benefits of high SOTE. Where other aeration systems that claim to deliver high SOTE fall short, Sanitaire Gold Series has expanded upon the high-density low-flux aeration system by providing maximum benefit of those fine bubbles, **maximizing the return on your investment.**

## Introducing the Sanitaire Gold Series Diffuser

Sanitaire's Gold Series diffuser is designed to maximize efficiency by delivering high SOTE with low headloss, all while maintaining excellent uniformity across the membrane and throughout the aeration grid. The unique diffuser design with multiple air flow control orifices allows the Gold Series diffuser to deliver a uniform bubble pattern over its entire length. Sanitaire's engineering expertise and know-how allows us to provide an optimal system design and layout, assuring uniform airflow among all Gold Series diffusers within a grid, eliminating hot spots, dead zones, and areas for spiral roll currents, each which can degrade SOTE. The Gold Series diffuser incorporates time-proven components and a soundly engineered piping system design philosophy, so owners can rest assured in the long term reliability of the system.

## The final word, SAE

Much of the benefit of high SOTE can be lost because of excessively high membrane or system headloss. Other "ultra-fine-bubble" devices do just that, deliver high SOTE but with accompanying high diffuser headloss and system pressure. The Sanitaire Gold Series achieves high SOTE with a headloss lower than a typical membrane disc aeration system. This translates to the **highest SAE (standard aeration efficiency) on the market today: minimizing power costs, maximizing energy savings.**

## Capabilities

<b>SOTE</b>	2.25 - 3.25% / ft of submergence
<b>Headloss</b>	10 - 16" water column
<b>Operating range</b>	0.5 - 4.0 scfm/square foot of media
<b>AT/AD</b> (tank area/diffuser area)	2.25 - 20
<b>SAE</b>	8-15 lbs O <sub>2</sub> /hp-hr



# Gold Series Benefits:

- ✓ High strength polyurethane membrane with precision perforations provides high efficiency, low headloss and long life.
- ✓ Field replaceable membrane, reduces maintenance costs and tank down-time.
- ✓ Continuous O-ring seal seated in groove provides reliable, long-lasting seal and prevents excessive stress on membrane.
- ✓ Rugged, reinforced end seals assure positive leak-proof closure and are easy to remove and reinstall for membrane replacement.
- ✓ Modular diffusers are preassembled for ease of installation. Available in lengths of 90", 59" and 28" to assure high-density full floor coverage in any tank configuration.



## From the name you can trust:

The Sanitaire name has been synonymous with reliability for over 40 years. The Gold Series diffuser builds on many of the proven features of Sanitaire fine bubble Silver Series membrane and ceramic disc aeration systems, maximizing reliability and making retrofits of existing Sanitaire systems a snap.

- Corrosion and UV resistant 4" PVC piping, capable of withstanding temperature variations. Demonstrated 20-year+ life in wastewater, generously sized to minimize system headlosses.
- Anti-rotational fixed joint: a rugged, proven design that withstands dynamic loadings encountered in a submerged aerating environment, including buoyancy, high fluid velocities and water hammer.
- Single anchor bolt support for ease of installation, alignment and removal if required. Infinitely adjustable for precise leveling, even on sloped tank floors.

# Xylem |'zīləm|

- 1) The tissue in plants that brings water upward from the roots;
- 2) a leading global water technology company.

We're 12,000 people unified in a common purpose: creating innovative solutions to meet our world's water needs. Developing new technologies that will improve the way water is used, conserved, and re-used in the future is central to our work. We move, treat, analyze, and return water to the environment, and we help people use water efficiently, in their homes, buildings, factories and farms. In more than 150 countries, we have strong, long-standing relationships with customers who know us for our powerful combination of leading product brands and applications expertise, backed by a legacy of innovation.

For more information on how Xylem can help you, go to [www.xyleminc.com](http://www.xyleminc.com)



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