

OVIVO[®]
Bringing water to life[®]

**LOWEST
HIGHEST
LONGEST...
BEST.**

FOR NEW CONSTRUCTION OR
AEROBIC RETROFIT TREATMENT
SYSTEMS

- **LOWEST** cost of ownership
- **HIGHEST** oxygen transfer efficiency
- **LONGEST** lasting membrane diffuser – Proven
- Your **BEST** Option for Process Aeration



AEROSTRIP[®]
SYSTEMS

OVIVO | NUTRIENT REMOVAL | A.R.T.S.

AEROSTRIP® SYSTEMS:

DITCH THE DISC

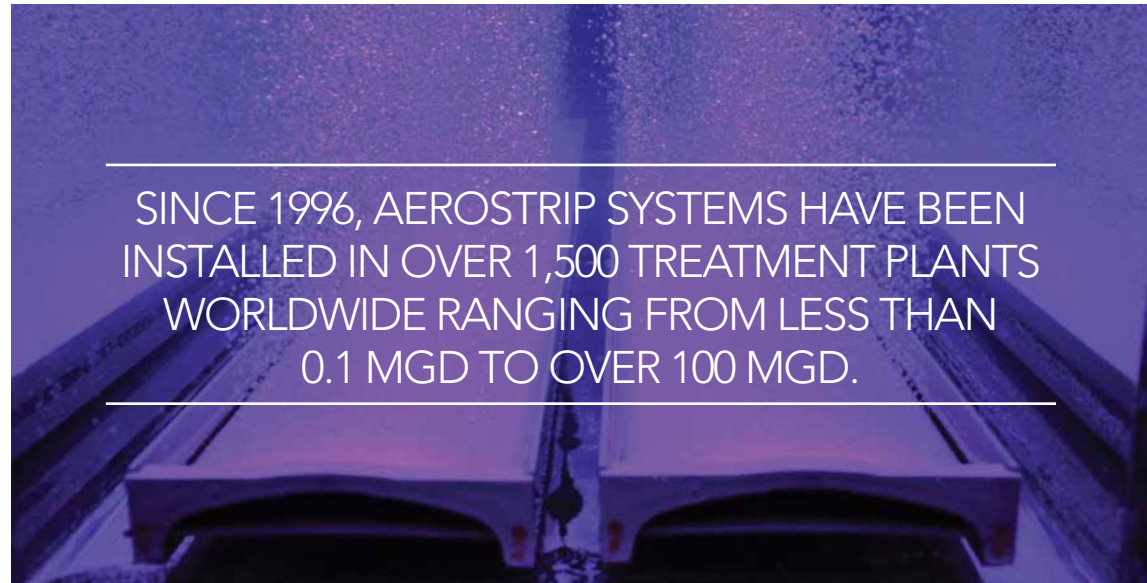
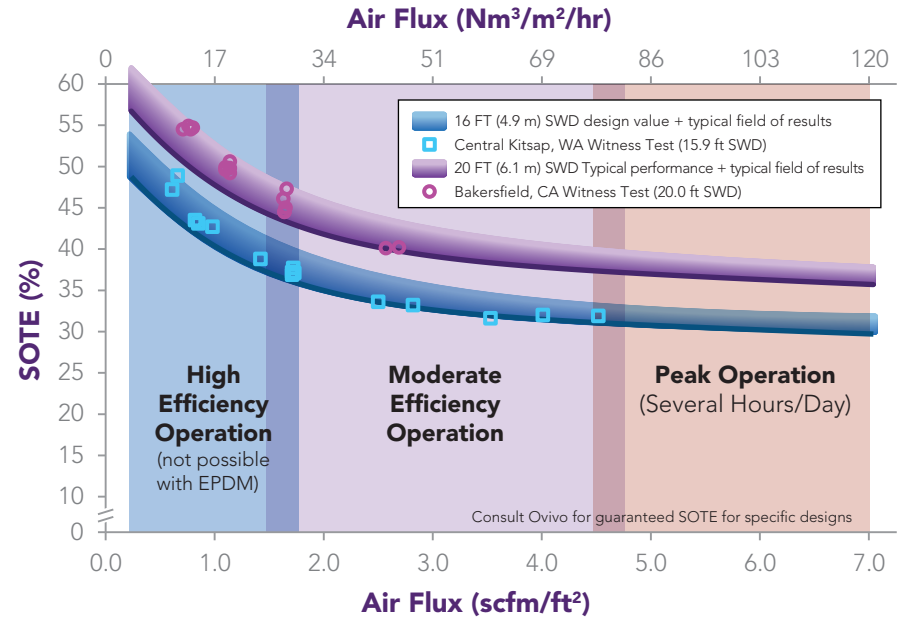
The AEROSTRIP® fine pore diffuser system provides the highest oxygen transfer and lowest energy demand possible for aeration of wastewater. Since 1996 with over 1,500 AEROSTRIP installations, this efficiency comes with proven reliability, low maintenance, and long-term performance.

AEROSTRIP diffusers are manufactured with a proprietary polyurethane membrane using a check valve perforation technique. When air is turned off (for example, in SBRs and in swing zones) pores close, and no air is released and no backflow of mixed liquor occurs. As air is turned on, pores open simultaneously along the length of the diffuser, allowing for small bubble formation at very low air flux rates under conditions that all other diffusers would clog.

At the factory, each individual AEROSTRIP diffuser—yes, each one—is tested for trans-membrane pressure and is inspected under air flow in a submerged condition. This quality program remains unparalleled in our industry today.



Membrane Expected Life	12-20 years
Flux Range:	0.3 – 7.0 scfm/ft ² (5 - 120 Nm ³ /m ² /hr)
Standard Oxygen Transfer Efficiency (SOTE):	Up to 60% for 20 ft (6 m) Sidewater Depth (SWD)
Standard Aeration Efficiency (SAE):	>8 lbs O ₂ /HP-hr (>5 kg O ₂ /kW-hr)
High Efficiency Dynamic Wet Pressure (DWP)	10 – 20 in H ₂ O (250 -500 mm H ₂ O) 0.36 – 0.72 psi (25 – 50 mbar)



CONSTRUCTION & RESULTS

PIPING

Conventional stainless steel drops to Schedule 40 PVC or stainless steel manifolds may be used for installation. Alternatively, high temperature-rated HDPE drops may be connected from the main air header down to a group of 4-6 diffusers. This latter option allows flexibility to operate (or not operate) small groups of individual diffusers by adjusting valves at the top of the tank. With either method, the floor-mounted AEROSTRIP diffuser is the lowest point of the system, and no condensate purge is required.

FLOOR MOUNTING

Floor mounting substantially improves mixing, eliminates grit accumulation dead zones, and provides additional contact time for each bubble. Sloped floors are no problem – the diffusers are mounted higher on the anchors at the lower points of the floor.

BEYOND THE CLEAN WATER TEST

AEROSTRIP polyurethane membranes have no additives: such additives leach into the wastewater over time causing EPDM membranes to become brittle. The AEROSTRIP polyurethane membrane remains elastic, and the perforations remain true to their original form over time.

LOWEST COST OF OWNERSHIP

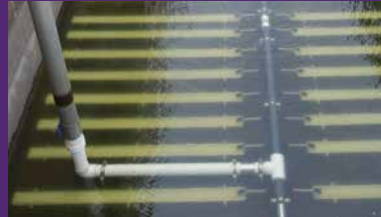
With easy installation, long-term low energy usage, and unparalleled service life, AEROSTRIP systems are the lowest cost of ownership aeration system for wastewater. AEROSTRIP systems have been installed in numerous energy reduction projects throughout the United States.

ON LINE MAINTENANCE

Our check valve perforation technique allows us to perform a relax/flex cycle of the membrane which keeps the pores clean, allowing high efficiency to be maintained for many years.

TYPE T - TIMELESS

Body	AISI 316 Ti Stainless
Membrane	Polyurethane
Connection	Threaded
Height	0.8 in (2 cm)
Width	6 - 7 in (15 - 18 cm)
Length	1.6 -13.1 ft (0.5-4.0 m)



Bremerton, WA

The first US AEROSTRIP installation started up in 2001 at the Bremerton, WA WWTP. In 2012 and 2013, the diffusers with the original membranes were independently tested using both the ASCE clean water test and the off gas process water method. The diffusers were found to be operating at 90% of their original efficiency after 12 years of continuous use.

"For conventional short sludge retention time treatment plants (SRT 1 to 6 days) this [12-year old AEROSTRIP] system performed better than all previously tested fine pore diffuser systems installed, and even better than most new ones"

- Dr. M.K. Stenstrom, Distinguished Professor, U.C.L.A.
December 2012

TYPE Q - QUALITY

Body	PVC
Membrane	Polyurethane
Connection	Compression, PVC
Height	1.8 in (4.5 cm)
Width	7 in (18 cm)
Length	1.6 -14.8 ft (0.5 - 4.5 m)



Rome, NY

In 2009, AEROSTRIP diffusers were installed in the Rome, NY plant as part of a nutrient removal and energy conservation project. The total suspended solids distribution was measured at various air flux rates. Due to the even distribution of air resulting from the check valve perforation technology and the floor mounting arrangement, good mixing occurred at flux rates half that of other fine pore diffusers.

"With AEROSTRIP Diffusers, we are able to adequately mix our Aeration Basins at 0.05 scfm per square foot of tank floor area. That gives us a lot of operational flexibility and also helps lower the electric bill."

- Richard Kenealy, Chief Operator, City of Rome New York WPCP
September 2012



PROCESS OPTIMIZATION & CONTROL

Ovivo can provide your AEROSTRIP® installation fully equipped with the latest and most effective control system available. Whether your goal is basic aerobic treatment or full-scale biological nutrient removal, Ovivo can provide it.

OVIVO: AN ENGINEERING PROCESS POWERHOUSE

The Ovivo Aeration Process Team, which consists of decades of biological wastewater treatment plant design and innovation, has provided expertise and design assistance for wastewater treatment plants consisting of all shapes, sizes, and effluent permits.

APPLICATIONS:

- Conventional Activated Sludge
- Oxidation Ditches
- Membrane Bioreactors (MBR's)
- Sequencing Batch Reactors (SBR's)
- Integrated Fixed-film Activated Sludge (IFAS)
- Municipal applications
- Industrial applications
- Retrofits



OVIVO®connectSM

Ovivo® ConnectSM portal is an innovative and intuitive application that allows our customers to use 'SmartTags' installed on our equipment (or a web URL) to access a personalized customer zone. Access your equipment documentation, find contract references, track service logs, manage spare parts, and plan your next maintenance to get the most out of your equipment.

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1-855-GO-OVIVO

info@ovivowater.com
ovivowater.com