Eco-lift™ Retrievable Aeration Grid

FOR SANITAIRE AERATION SYSTEMS

SANITAIRE
a xylem brand

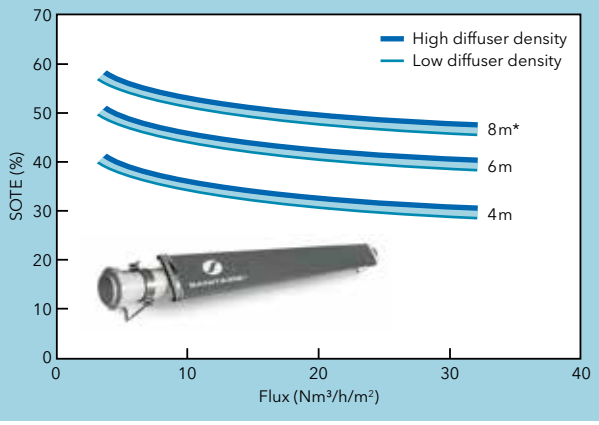
Xylem's Sanitaire Eco-lift retrievable aeration grid incorporates a revolutionary tube-in-tube design that reduces buoyant forces by up to 60 percent. This design makes it easier and more economical to access Xylem's Silver Series and Gold Series fine bubble diffusers for easy maintenance - the most reliable, energy efficient, and effective diffusers in the industry.

With the patent pending tube-in-tube design, the inner tube fills with process water, and air is allowed to flow in between the inner and outer tube. Silver Series or Gold series diffusers are attached to the outer tube. This aeration grid is then attached to a stainless or carbon steel frame structure acting as ballast and securing the grid to the basin floor.

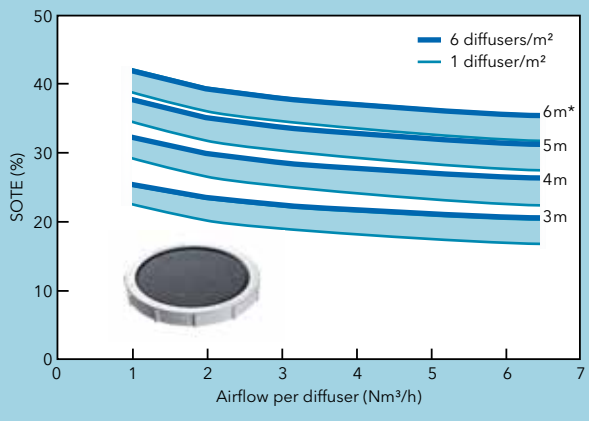
Superior Aeration Capability with Lowest Life Cycle Costs

- **Silver Series and Gold Series diffusers have the highest OTE in the industry:** Stable treatment starts with excellent Oxygen Transfer Efficiency (OTE) and Xylem's Silver Series and Gold Series diffusers lead the industry in OTE.

Performance curves
Gold Series



Performance curves
Silver Series



Graphs show typical results, however results may vary. Please contact Xylem to determine performance data for your system. **Submergence*

- **Lower energy costs by design:** Aeration is typically a wastewater treatment plant's highest energy consumer. With more than four decades of design experience and millions of reliable diffusers installed, Sanitaire has mastered designing systems more efficiently than anybody else. Higher oxygen transfer efficiency diffusers, coupled with energy efficient blower systems and intelligent real-time control can save up to 65 percent on energy costs compared to mechanical aerators or even other diffused aeration systems, such as tube diffusers.
- **Lower capital costs accelerate return on investment (ROI):** While maintaining the structural integrity and security you expect from Xylem, the Eco-lift retrievable grid uses significantly less steel than other retrievable grid systems, lowering product costs by up to 50 percent, compared to Xylem's previous systems. Lower capital costs means accelerated ROI.
- **Enables single basin design:** Further lowering capital costs, if you have a limited budget or limited space, two basins are no longer required for maintenance. Grids of aeration diffusers can be inspected and maintained while the rest remain in service. If a single basin is your only option, you no longer have to sacrifice maintenance convenience or treatment efficiency.
- **Expedites retrofits:** Single basins, especially with inefficient surface mechanical aerators, stay in service, while transitioning to highly efficient, fine bubble diffuser systems. Realize the payback in superior oxygen transfer efficiency, energy efficiency and treatment stability.
- **Longer life diffusers further lower life cycle costs:** Xylem's Silver and Gold series diffusers have a 7 to 10 year life expectancy, compared with 2 to 5 years for tubular membrane diffusers.

Easy Maintenance While In Service

- **Maintain grids with basins in service:** No need to remove basins from service or drain basins for inspection or maintenance. Need to inspect or replace a diffuser membrane? Retrieve the individual grid with the Eco-lift while the other grids remain in service, with no treatment interruption.
- **Diffuser change out is quick:** Xylem Silver Series II and Gold Series diffuser membranes can be changed out in three to five minutes, speeding maintenance tasks. Compare that to 15 to 30 minutes for other tubular membrane systems.
- **Minimal mechanical equipment to maintain:** Tired of greasing bearings, changing oil, fixing or replacing motors and gears? Fine bubble diffused aeration systems don't require any of this. Blowers are the only mechanical equipment and they are easily accessible and simple to maintain.
- **Choose your lifting method:** Use either a lifting cable with central mast to retain cables above the water line for easy connection to an external crane, or four tubular lifting arms which meet at a central location above the water level to easily lift the grids.

Revolutionary design

- **Reduces buoyant factors by up to 60 percent:** With the patent pending tube-in-tube design, the inner tube fills with process water, and air is allowed to flow in between the inner and outer tube. Silver Series or Gold Series diffusers are attached to the outer tube. This aeration grid is then attached to a stainless or carbon steel frame structure acting as ballast and securing the grid to the basin floor.
- **High buoyancy safety factors (with a minimum of 1.5):** Ensures that grids do not move out of position.
- **Doesn't use concrete for structural support:** Eco-lift never uses concrete as a structural member - only as ballast. Concrete ballast is not as strong and durable as steel. Its inflexibility makes it prone to break, either during installation or during lifting for maintenance, damaging your equipment and impacting treatment. What good is a liftable grid if you are afraid to lift it? Eco-lift retrievable grid never uses exposed concrete. Instead it uses stainless steel tubes or epoxy coated carbon steel I-beams, protecting your equipment and ensuring years of satisfactory service, lift after lift after lift.

When it comes to retrievable aeration grids, let Xylem's Eco-lift retrievable grid do the heavy lifting.

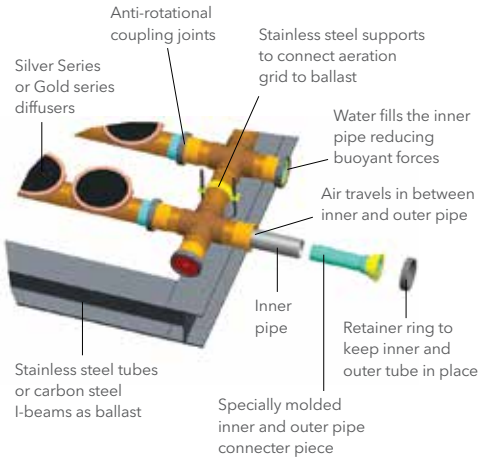
Backed by the process expertise of Sanitaire and Xylem's suite of premium products, Eco-lift retrievable grid combines reliable, energy efficient treatment with an ease of maintenance for years of worry free, compliant service.

Reliability and Expertise You Can Trust

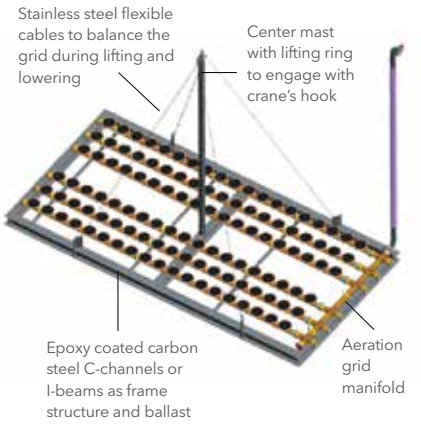
- **Innovation backed by experience:** With over 1,000 Xylem retrievable grids currently in operation around the world, the Eco-lift retrievable grid builds on years of experience, taking cost effective reliability to the next level.
- **Capitalize on our biological treatment expertise:** We can evaluate your existing system and design an aeration system to meet your treatment objectives.
- **Save on energy:** A Xylem TotalCare condition audit provides an estimate on the payback period based on YOUR system and energy requirements.

Backed by Xylem's Suite of Premium Products

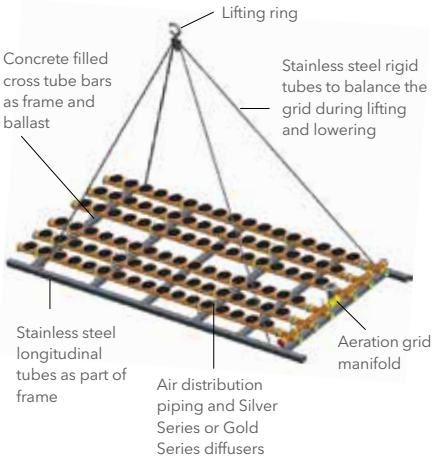
- **Designed for Bioloop oxidation ditch:** The Eco-lift retrievable grid goes together naturally with Xylem's Sanitaire Bioloop oxidation ditch for highly efficient, reliable treatment. It is also ideal for Xylem's ICEAS® advanced SBR and any other activated sludge process - like SBRs, oxidation ditches or conventional activated sludge systems.
- **Energy efficiency made simple:** Save even more by tapping into the full line of Xylem energy-efficient products, such as Flygt mixers and energy-efficient blowers.
- **OSCAR process performance optimizer:** Minimize energy usage with real-time monitoring and Xylem's state-of-the-art control technology.



Tube-in-tube design



Lifting Arrangement Option 1



Lifting Arrangement Option 2

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Let's Solve Water

Flygt and Sanitaire are brands of Xylem, whose 12,000 employees are addressing the most complex issues in the global water market.

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