

NICO VARUNA NANOBUBBLE SYSTEM ADVANCED OXYGENATION FOR SEWAGE TREATMENT & DRAIN MANAGEMENT

Urban wastewater systems face increasing pressure from rising loads, odor issues, and inefficient treatment processes. The **NICO VARUNA Nanobubble System** delivers a next-generation solution by enhancing oxygen transfer, accelerating pollutant breakdown, and stabilizing biological treatment processes.

Challenges in Sewage & Drain Systems

Despite existing infrastructure, several issues continue to impact performance:



Low Oxygen Levels

Inefficient aeration leads to poor biological treatment and slower degradation.



Foul Odors & Toxic Gases

Anaerobic conditions generate hydrogen sulfide and other harmful gases.



Sludge Accumulation

Excess organic load leads to sludge buildup and reduced system efficiency.



Polluted Drains & Flow Issues

Solid waste and organic matter disrupt flow and degrade water quality.

Key Benefits

Delivering measurable improvements in wastewater and drainage systems:



Improved Treatment Efficiency

Faster and more effective pollutant removal.



Cleaner Drains & Reduced Odor

Enhanced flow conditions and healthier urban environments.



Lower Operational Costs

Reduced energy and maintenance requirements.



Scalable & Reliable Performance

Suitable for both centralized and decentralized systems.

Why NICO VARUNA?

NICO VARUNA is engineered for efficient and sustainable sewage management:



Enhanced Oxygenation & Treatment Efficiency

Improves oxygen transfer, accelerating biological degradation.



Odor Control & Water Quality Improvement

Reduces foul odors, scum formation, and visible pollutants.



Optimized Sludge & Energy Performance

Enhances sludge stability while reducing aeration energy demand.



Sustainable & Chemical-Free Approach

Minimizes reliance on chemicals for treatment.



Flexible Integration

Easily retrofits into existing infrastructure with minimal changes.

Key Application Areas



Municipal Sewage Treatment Plants (STPs)

Improves biological treatment efficiency and overall plant performance.



Sludge Polishing & Stabilization

Reduces residual organic load and improves sludge handling.



Sewer Line Oxygenation

Prevents anaerobic conditions and reduces gas formation.



Open Drain Restoration

Enhances water quality and restores flow conditions.



Odor Control in Wastewater Systems

Minimizes foul smells through improved oxygenation.



Decentralized Wastewater Treatment

Enables compact and efficient localized treatment solutions.



ISO Certified Quality Standards



Global Presence



Customizable, Application-Specific Solution

Enhance Water Quality, Reduce Sludge & Improve Biological Treatment Performance.

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