WATER SCIENCE

SEPARATION SCIENCES

DIVA ENVITEC PVT. LTD.

Wastewater Treatment

REVIVING WATER SUSTAINABLY

info@aboutfilter.com

www.divaenvitec.com

About The Company

The company was set up by a group of professionals with rich and varied experience in design, development and implementation of viable solutions to ensure filtration requirements, who came together to form “Diva Envitec™” in 1992 to develop technology driven separation and filtration systems for the process industry. It was incorporated into a Pvt. Ltd company in year 2010.

Helping you lower your carbon and water footprint

Doing the root cause analysis of problem

Customized and bespoke solutions

DRIVING INNOVATION IN SEPARATION SCIENCE & WASTEWATER TECHNOLOGIES

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Industries We Serve

- Pharmaceutical & API
- Chemicals & Fine Chemicals
- Sugar, Distillery & Bioethanol
- Petroleum & Petrochemical
- Pulp & Paper Industry
- Textile, Dye & Pigments
- Mining & Minerals
- Food, Dairy & Beverage
- Biopharmaceuticals & Fermentation

35 +

Years of Experience

7 +

Countries Reached

1500 +

Clients Served

Our Prominent Clients

Cipla
Reliance Industries Limited
BAYER
GAIL (India) Limited
INEOS
IREL (India) Limited (Formerly Indian Rare Earths Ltd) A Govt. of India Undertaking A Miniratna–I Company
Atul
GoldStar Kenya Empowering communities for better health
GACL Thirumalai Chemicals Ltd.
SUN PHARMA
Dr.Reddy's
BAJAJ SINCE 1993
BARC
Dalmia cement
mbe McNally Bharat Engineering Company Limited
NTPC
NAVIN FLUORINE INTERNATIONAL LIMITED
NUCLEAR POWER CORPORATION OF INDIA LIMITED (A Government of India Enterprise) Department of Atomic Energy
Alembic Touching Lives over 100 years
UPL OpenAg
JM Johnson Matthey Inspiring science, enhancing life
SOLARA Active Pharma Sciences
CADILA PHARMACEUTICALS LIMITED The Care Continues...
DEEPAK FERTILISERS AND PETROCHEMICALS CORPORATION LIMITED CIN: L24121MH1979PLC021360
DEEPAK RESPONSIBLE CHEMISTRY
LUPIN
MEGHMANI ORGANICS LTD Chemistry of Success at Work
Balrampur Chini Mills Limited
ADITYA BIRLA GRASIM
HWB
KMML The Kerala Minerals & Metals Ltd.
SAJJAN INDIA LIMITED
ELECTRONIC SECURITY ASSOCIATION OF INDIA

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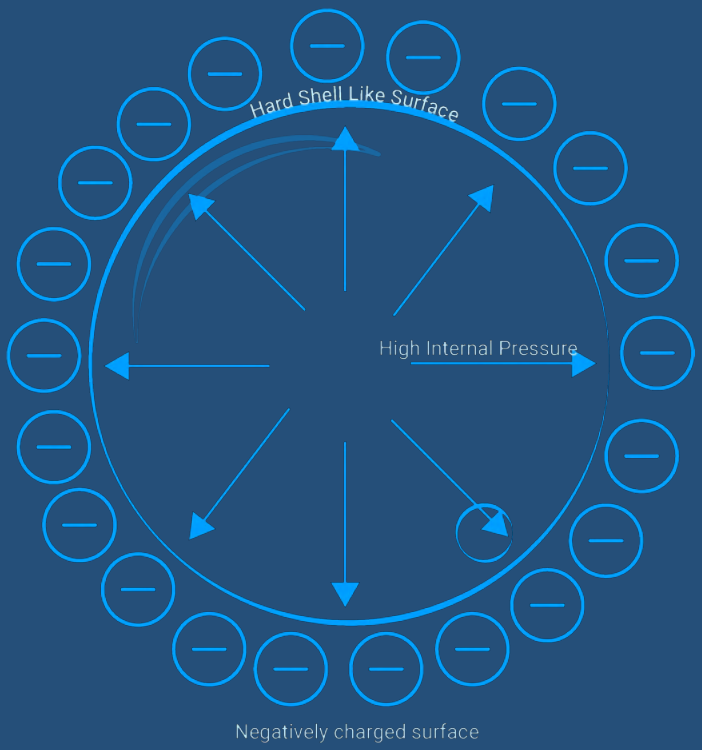
NANOPOREX - E

Nanobubbles for efficient aeration

Nanoporex offers cutting-edge nanobubble technology, providing a cost-effective and efficient solution for wastewater treatment, enhancing aeration, and filtration processes.



— Working Mechanism

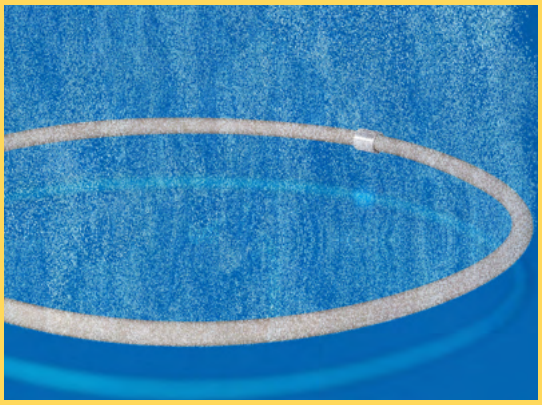
Nanoporex employs nanobubbles, ranging from 50 to 100 nm in size, which are stable and non-buoyant.

These nanobubbles directly inject oxygen into the system, significantly reducing energy consumption compared to traditional aeration methods that use air containing 70% nitrogen.

This efficient oxygen delivery enhances the aeration process, ensuring optimal dissolved oxygen levels in wastewater treatment.

Features

01



Efficient Aeration Solution

Nanobubbles provide a cost-effective supplemental aeration option for moving bed bioreactors (MBBRs).

By injecting oxygen directly and utilizing stable nanobubbles, energy consumption is minimized, resulting in a low-energy solution for aeration.

02

Benefits in Treatment

Nanobubbles are effective in controlling odors, preventing anaerobic conditions, and maintaining high dissolved oxygen (DO) levels.

This modular and quick solution enhances treatment efficiency across various water and wastewater processes.

03

Odour Control

✓ **Efficient Oxygen Maintenance**

Nanobubbles efficiently maintain DO levels, preventing the formation of anaerobic conditions that lead to odorous compounds

✓ **Odor Treatment**

An effective treatment for offensive odors, particularly hydrogen sulfide, in wastewater.

04

Oil-Water Separation

✓ **Flotation Enhancement**

Nanobubbles improve the flotation process, making it easier to separate oil and suspended solids.

✓ **Perfect for Produced Water**

Ideal for treating produced water in oil refineries.

05

MBBR

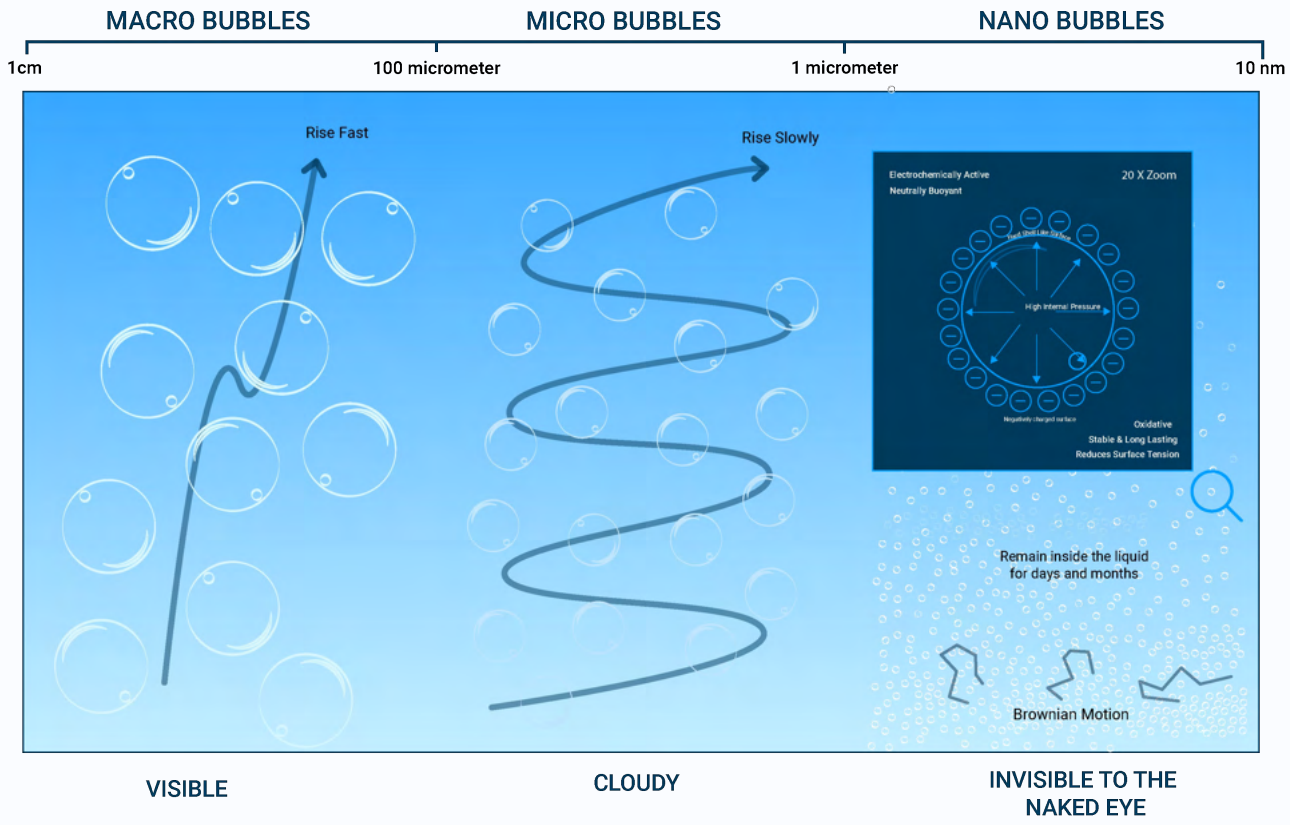
✓ **Supplemental Aeration**

Nanobubbles provide additional aeration during peak loading events, ensuring consistent DO levels.

✓ **Cost-Effective Solution**

A cost-effective method to maintain target DO levels in industrial MBBR.

Criteria	Diffusers	Nanoporex-E
Energy Costs	High energy consumption due to air containing 70% nitrogen.	Lower energy consumption by using pure oxygen and stable nanobubbles. Power almost 50-60% lower
O_2 Oxygen Uptake Power	Lower due to inefficiencies in air diffusion.	Higher due to efficient oxygen delivery directly into the water.
Ease of Operation	Relatively simple but requires frequent maintenance to prevent clogging.	Generally easy with less maintenance needed due to stable nanobubbles.
Stability of System	Can be unstable with frequent fouling and maintenance issues.	Highly stable due to non-buoyant and consistent nanobubbles.
Control Over DO Levels (O_2)	Moderate	Enhanced control with precise oxygen delivery and distribution.
Growth of Bacteria	Can lead to uneven bacterial growth due to fluctuating oxygen levels.	Promotes uniform bacterial growth by maintaining consistent DO levels.



Water Treatability Studies

Diva Envitec Pvt Ltd operates an Innovation Center in Mumbai, where we conduct comprehensive treatability studies on client-provided samples. By covering minimal logistical costs, you can access this facility and receive a detailed assessment of the most effective treatment methodology tailored to your specific wastewater stream.

Contaminants We Treat

- Acetone
- Acetone-Amine Impurities
- Amine Dimers
- Ammoniacal Nitrogen
- Ammonium Chloride (NH4Cl)
- Amino Naphthol Disulphonic Acid Sodium Salt
- P- Cresol
- Cyanides
- DD3: Sodium Acetate, Sodium Ferrocyanide, Rosin, Sodium Sulphite
- DD7: Sodium Acetate, Sodium Ferrocyanide, Copper Sulphate, Rosin, Sodium Sulphite
- D-40
- Fluorides
- Hexavalent Chromium
- Hydrothioic Acid (HSCN)
- Iron Oxide
- Iso-Thiocyanate
- Latex (recovery project)
- Methyl Ethyl Ketone (MEK)
- Methanol
- Nitro Cresol (DNOC & DNPC)
- Naphtha
- Oil and Grease
- Para Amino Phenol
- Phenol
- Phenolic Compounds
- Picric Acid
- Phosphates
- Phosphoric Acid (18-20% concentration)
- Polyethylene Glycol
- Polyvinyl Alcohol (recovery project)
- Sulfides
- Sodium Chloride (NaCl)
- Sodium Hydroxide (NaOH)
- Sodium Sulphate
- Sodium Thiocyanate (NaSCN)
- Solvent Black 46: Sodium Acetate
- Solvent Red: Sodium Acetate, Residual Dye
- Sulphate
- Sulfolane
- Toluene
- Titanium Oxide
- Trace Aromatic Amines
- Yttrium Chloride

And many more...

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