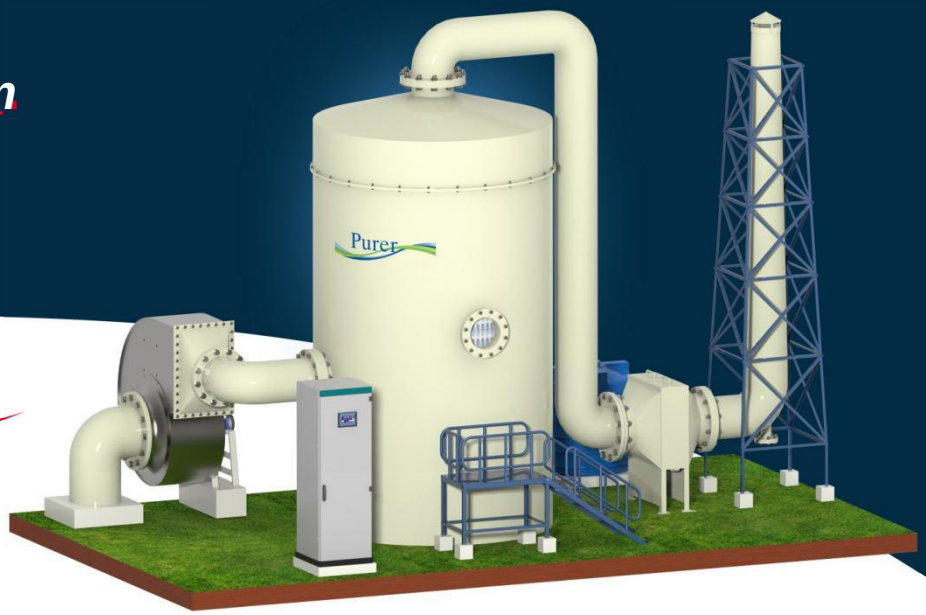
IEC FABCHEM LIMITED

Biotrickling Filter System

Purer



Purer

Biological Odour Control System For STP

ODOUR CONTROL TECHNOLOGIES

Odour related problems are a major concern for the communities surrounding the Sewage Treatment Plants (STP) and Sewage Pumping Stations.

The main challenge in the design of odour control system lies in its capability to consistently achieve complete odour removal despite the diversity of high concentration of pollutants which is the main consideration of our system.

IEC designs and manufactures Biotrickling Filter System to remove high levels of hydrogen sulfide (H_2S) gas, Ammonia (NH_3) and other odour causing gases from STP's and Pumping stations. Our Biotrickling Filter Systems will typically remove 99.9% of odorous gases without the use of chemicals.

ABOUT PURER

IEC'S PURER Series Odour Control System is an advanced two-stage biological system that provides effective odour control. The first stage is a biotrickling reactor where oxidizing bacteria's are used to oxidize hydrogen sulfide (H_2S), Ammonia (NH_3) and other odorous compounds. The second stage uses activated carbon to remove the remaining odour traces.

PROCESS DESCRIPTION

The PURER system uses a proprietary packed media bed as the primary support for the media growth. The media bed is irrigated with nutrients. This will provide optimum environment for the preferential growth of Sulphur Oxidizing and Ammonia Oxidizing bacteria's. Better than 99.9% H_2S removal can be achieved at high inlet loading of 150 ppm H_2S. Sizing is based on air flow rate, H_2S and organic odour concentrations.

FEATURES & BENEFITS

01 Low operating cost

02 More than 99.9% H_2S and NH_3 removal

03 Low maintenance

04 Low gas Retention Time which results smaller foot print than competitors

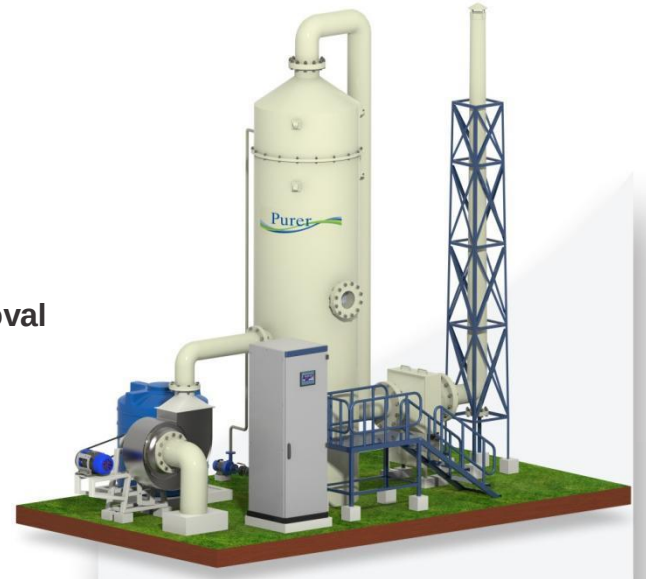
05 Two-Stage Design for Effective H_2S and Organic Odour Removal

06 Low water usage

07 Compact & small footprint design

08 No handling or storage of hazardous chemicals

09 Integral nutrient feed system



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BIO-TRICKLING FILTERS

TWO STAGE. REMOVAL

MADE FROM

Glass Reinforced Plastics for

CORROSION RESISTANCE.

INDUSTRIAL APPLICATIONS

- Sewage Treatment Plants (STP)
- Waste Water Treatment Plants (WWTP)
- Sewage Pumping Stations
- Waste Storage &Treatment Plants

MODELS & CONSTRUCTION

Available Capacity: 100 m^3/hr to 50,000 m^3/hr of odorous air.

Models	*Odorus Air Handling Capacity (m^3/hr)*	*Volume Of Tank*
PURER – 1	100	25 Cubic meter
PURER – 2	200	50 Cubic meter
PURER – 3	300	75 Cubic meter
PURER – 5	500	125 Cubic meter
PURER – 7	700	175 Cubic meter
PURER – 10	1000	250 Cubic meter
PURER – 15	1500	375 Cubic meter
PURER – 25	2500	625 Cubic meter
PURER – 35	3500	875 Cubic meter
PURER – 50	5000	1250 Cubic meter
PURER – 75	7500	1875 Cubic meter
PURER – 100	10000	2500 Cubic meter
PURER – 150	15000	3750 Cubic meter
PURER – 200	20000	5000 Cubic meter
PURER – 250	25000	6250 Cubic meter
PURER – 300	30000	7500 Cubic meter
PURER – 400	40000	10000 Cubic meter
PURER – 500	50000	12500 Cubic meter

CONSTRUCTION

All PURER series systems are GRP constructed for durability & corrosion resistance. PURER systems are designed to remove high concentration upto 150 ppm of Hydrogen sulfide (H_2S) and 40 ppm of Ammonia (NH_3) to less than 1 ppm.

TECHNICAL DETAILS

Specifications	Power Supply	Operator Interface	Outlet Concentration	Maximum Inlet Concentration
1. First Stage – Bio Trickling Filter 2. Second Stage – Activated Carbon Filter 3. Centrifugal Draft Fan 4. Vent stack 5. Outlet H_2S & NH_3 Monitors	415 V AC, 3 Phase.	PLC/HMI Touch screen.* (Optional)	< 1 ppm H_2S < 1 ppm NH_3	150 ppm H_2S 40 ppm NH_3

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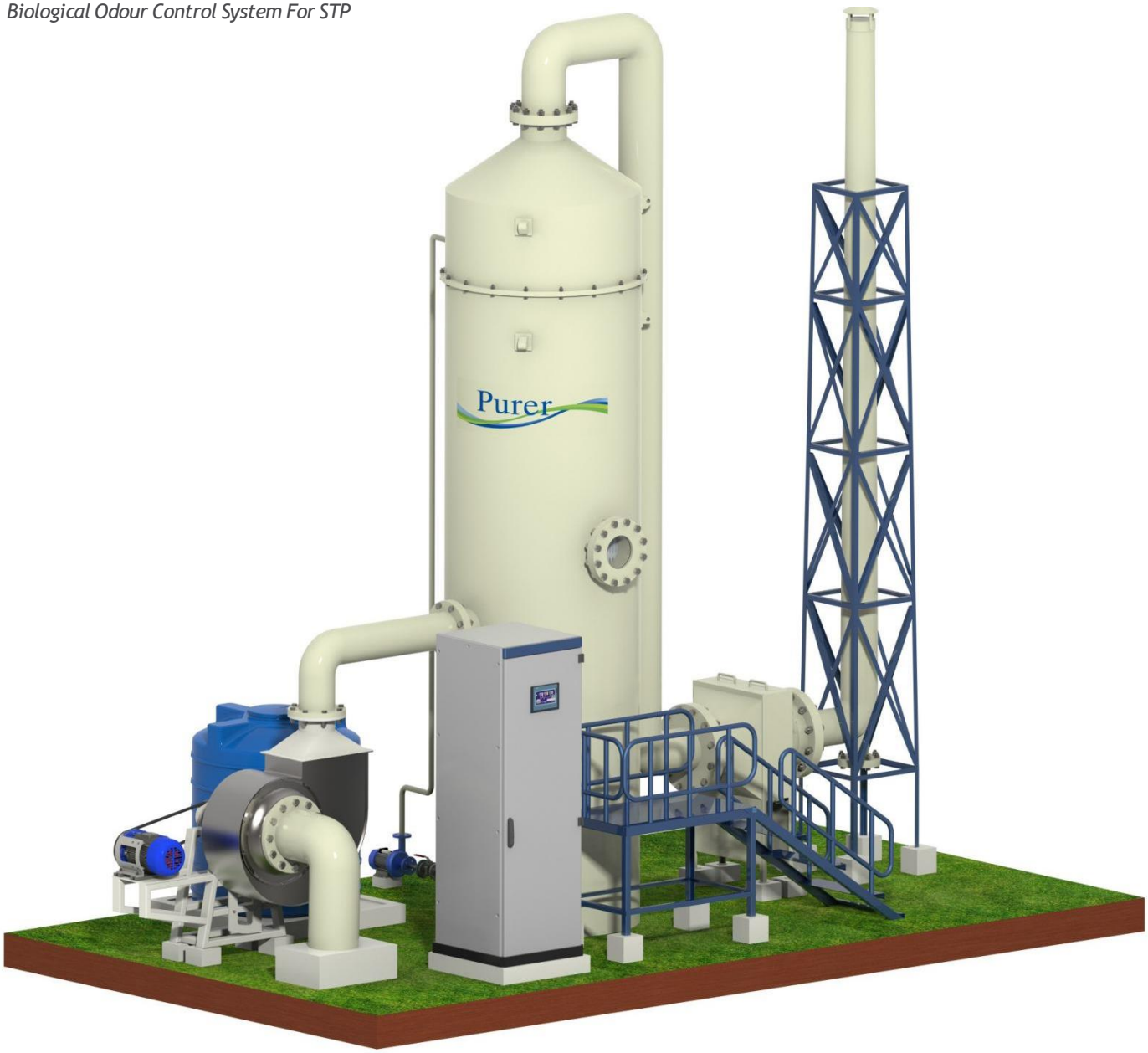

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