



USM Unic Care Technologies Pvt Ltd

Technological Enhancement Through Innovation



Complete water and environmental solutions



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Water & Air Disinfection and Odour Control System

OZONATOR

- ◆ Capacity 10 gram per hour to 10 kg per hour
- ◆ Hatcheries needs ozone generators to disinfect water and air
- ◆ Water disinfection for prolonged preservation of sea food
- ◆ To control air pollution at feed industry
- ◆ Ozone (O₃) is a very effective disinfection agent and can be used in swimming pools
- ◆ Ozone generators also have wide application in pharmaceutical industries, food & beverages and drinking water plants

UV DISINFECTION

Capacity 10NM³/HR to 100NM³/HR

UV disinfection equipment uses short-wavelength ultraviolet C (UV-C) light to kill or inactivate microorganisms by destroying nucleic acids and disrupting their DNA, leaving them unable to perform vital cellular functions.

It is used in a variety of applications, such as food, air, and water purification.



STP & ETP plant, waste water product, solid waste management product and bio gas plant consultant, maintenance & service



STP & ETP PLANTS

Capacity 10KLD to 10MLD

Sewage Treatment Plant (STP) is a process of purification of Sewage water and reusing for Gardening, Agricultural and other general Purpose. STPs are

mandatory in most of the industries, housing colonies, apartments etc.

Effluent Treatment Plant (ETP) is a process design for treating the industrial waste water for its reuse or safe disposal to the environment

USM Uniccare Technologies is well experienced in consultation work of STP & ETP Plants.



BIO GAS METHANISATION PLANT

A Biogas plant is a decentralized energy system, which can lead to self-sufficiency in power and energy needs, and at the same time reduces

environmental pollution.

USM Uniccare technologies an organization established with the principal aim of protecting the environment by producing Bio waste to Bioenergy solutions.

The waste when utilized effectively can deliver valuable products. The best approach to use bio waste is to feed it in Biogas plants.

A biogas plant produce 40kg of Bio CNG from 1 MT of bio waste along with a number of bi-products.

Largest STP & ETP Plant Manufacturer

SLUDGE DE-WATERING SCREW PRESS

Capacity 1NM³/HR to 50NM³/HR



In the process of waste water treatment water containing sludge of different properties is generally produced. Our dewatering screw press is suitable for dewatering of liquid sludge from a wide range of including food and beverage, chemical, textile and dairy etc

De-watering screw press mainly used in food processing, sewage disposal, pulp and paper industries, dairy industries and chemical industries.

DESALINISATION PLANT

Capacity 2NM³/HR to 1000NM³/HR



Desalination uses reverse osmosis technology to separate water molecules from seawater. Water from the ocean is forced through thousands of tightly-wrapped, semipermeable membranes under very high pressure.

The membranes allow the smaller water molecules to pass through, leaving salt and other impurities behind.

SOFTENER TREATMENT PLANT

Capacity 2NM³/HR to 100NM³/HR



PRESSURE CARBON & SAND FILTER

Capacity 2NM³/HR to 100NM³/HR



ROTATABLE DRUM FILTER

Capacity 10NM³/HR to 100NM³/HR



Stainless steel rotatable drum filters are used to remove the big solid particles from waste water produced by the processing industries.

DAF

Capacity 2NM³/HR to 100NM³/HR



Dissolved air flotation (DAF) is a clarification process that utilizes air to remove suspended matter from the surface of treated water. DAF works by dissolving air under pressure and then releasing millions of tiny air bubbles into the water at atmospheric pressure.

REVERSE OSMOSIS

Capacity 2NM³/HR to 100NM³/HR



ULTRA FILTRATION

Capacity 2NM³/HR to 100NM³/HR



Water
and
Waste Water
Treatment
Plant
Products

Air Separation Products

PSA & VPSA OXYGEN PLANT

Capacity 2NM³/HR to 100NM³/HR

- ◆ Oxygen gas useful in packing of seeds
- ◆ Improves dissolved oxygen content in water for better maturation process
- ◆ Plays an important role in hospital segment
- ◆ The oxygen plant have wide range of application in paper & pulp industries, glass industries, metallurgical industries, chemical industries and water & waste water treatment plant



PSA & VPSA BIO GAS PURIFICATION PLANT

Capacity 50NM³/HR to 10,000NM³/HR

Pressure Swing Adsorption (PSA) is an effective method of gas separation, particularly where a complex mixture of gases are generated from the feedstock.



Following initial desulphurisation the PSA processes can be used to separate the mixed gases as different gases are adsorbed on different surfaces.

Changing the pressure allows oxygen (O₂), nitrogen (N) and carbon dioxide (CO₂) to be trapped by the adsorbents, resulting in a continuous output of high-purity biomethane of at least 97%.

The PSA system also effectively removes hydrogen sulphide (H₂S) and in addition to other systems is able to recover the CO₂ to use as a by-product.

PSA & VPSA NITROGEN PLANT

Capacity 2NM³/HR to 500NM³/HR

Applications:

1. Tyre filling
2. Fuel tank inerting
3. Autoclaves and furnaces
4. Blanketing for many industries
5. Metal processes
6. Oil & Gas and petrochemicals
7. Laboratories
8. Offshore platforms & FPSO
9. Oil cargo ships and oil tankers
10. Flex printing
11. Cables and CCV lines



PSA type nitrogen generators are utilized extensively in food and beverage packaging, electronics manufacturing, chemical industries, medical facilities

DESICCANT HEATLESS TWIN TOWER AIR DRYER

Capacity 100CFM to 1000CFM

A desiccant dryer or an adsorption dryer is a piece of industrial equipment that uses desiccant materials to eliminate water from the air channelled through it. A standard desiccant dryer system uses a two-tower set up to ensure a continuous air drying cycle.

Desiccant air dryers are most common in industrial applications that utilize compressed air



Online water and air pollution control monitoring sensors, Analysers & software Integration System as per CPCB standards



Sensors

VOC sensor: VOC sensors are programmed to detect subtle changes in specific gases and send the data to a central monitoring system.

Ozone leak detector: Ozone leak detectors are used to monitor the leakages in the ozone generator system.

Ammonia leak detector: In the case of ammonia, small leaks can be detected by the rapid drop of temperature due to the evaporation of the released liquid ammonia.

BOD, COD, pH & TSS sensors: The BOD & COD sensors, pH sensors, TSS sensors are used to measure the respective parameters in the STP & ETP

Flow control system: Flow meters is the necessary equipment in the STP & ETP to measure the volume



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