

OZONE GENERATORS

KOMAL Manufacture a Corona Discharge Ozone Generator and Ozone application Engineering. Including dissolution column, Air preparation unit and Ozone destruction. 'OZ' series of Ozonator Generator operate exclusively on oxygen feed gas, Eliminating the need of Air preparation unit. For the smaller requirement of ozone 'OZ' Series Ozone Generator are very efficient, reliable and very cost - effective.



Ozonator is provided with all the accessories including filters, dielectric glass cell. High Voltage Transformers, Flow meters, Pr. gauges, Safety shut - off valve, Pr. regulator, etc.

Applications

Bacteria Disinfecting and Viral inactivation for Drinking Water.
Oxidation of inorganic Salts like Iron, Manganese, heavy metals, Cyanides, Sulphide etc.

Oxidation of organics. Including tannin, humic Acid, insecticide.
Improve flocculation : O₃ helps to Coagulate and produce large particle, which help flocculation.

Model No	Ozone Output	Oxy Flow at 2 % wt. (l/mt.)
O2 - 1	1 gm/hr	0.6
O2 - 2	2 gm/hr	1.2
O2 - 3	3 gm/hr	2.03
O2 - 5	5 gm/hr	3.5
O2 - 10	10 gm/hr	6

Common Contaminants in well water and suggested minimum Ozone Dosage

Contaminant	Ozone in mg / mgg
Iron	0.25
Manganese	0.5
Hydrogen Sulphide	3.0
Tennins	0.1
Disinfection	0.5

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APPLICATIONS:

- * Bacterial disinfection and viral inactivation
- * CIP Systems for Pharmaceuticals Processing
- * Bottled Water Production
- * Washing and Cleaning of Vegetables and Fruits
- * Cooling Water Treatment
- * Petroleum Refining
- * Industrial Waste Water Treatment
- * Oxidation of Inorganics
- * Oxidation of organics
- * Control of Iron, Manganese, Colour, Odour
- * Pathogens - Fish Pond Water Treatment

ADVANTAGES:

- * Eliminate Chemical Cost
- * Eliminate Cost of Transportation and disposal
- * Ozone leaves no residue, its only by - product is Oxygen
- * Precipitate heavy metals
- * Enhance Taste / Freshness of Water

OZONE PRODUCTION

Ozone producing electrodes are of the Corona discharge type, having a 316 Stainless Steel tubular outer shell, with an Internal Cylindrical dielectric assembly. The dielectric has a conductive material that is applied to the inner surface and is connected to the high voltage, low or medium frequency power supply with the S.S. Tubular outer shell acting as the ground between the S.S. Tubular outer shell and the dielectric assembly is an air gap Ozone “ Corona “ discharge gap. The oxygen enriched feed gas stream passes through the air gap and the intense corona converts a percentage of the oxygen to Ozone.

OZONE GENERATOR:

Ozone System shall include all necessary components and controls to constitute a completely functional and operational generation system intended for 24 hrs. Operation

Generator shall include the following:

- ❖ Stainless Steel Ozone generating cell
- ❖ Medium frequency power supply inverters with transformers and control
- ❖ Optional PLC for various controls
- ❖ Ozone Dissolution Column with non corrosive diffuser
- ❖ The generator is powered by 230 V AC 1 phase or 440 VAC 3 phase 60 cycle service
- ❖ Alarm and safety features
- ❖ Optional dissolve ozone monitor
- ❖ Optional Ozone destruct module

OZONE GENERATORS

Ozonation is one of the many methods used for the purification of water. Ozone is an unstable gas having life in water of minutes. Ozone can not be stored, it has to be generated and use for treatment immediately.. Corona discharge method of Ozone production generate more Ozone Concentration. For water disinfectant and oxidation, Ozone is dissolved in a water