

Ozone generator Model: G-OXY



Fig. G600-OXY, 600 gO₃/hr

Model name:	G100-OXY ... G900-OXY,
Type:	Oxygen type
Capacity:	100...900 gO ₃ /hr
Production range:	5...100% various setting, manual/automatic ozone production control
Feed gas:	Oxygen from remote source (LOX or PSA oxygen concentrator)

Features:

- **Modular system** with comprehensive monitoring of functions and operations according DIN 19627 (German Standard for ozone generators) and EN1278
- Designed for reliable operation at 100% duty during 24 hrs/day on 365 days/year
- Highest possible operation safety due to the use of serial components from leading European manufacturers
- Construction and materials designed for highest availability and long life span
- Multi-circuit ozone generators available
- Easy access to all essential components
- Industrial standard
- Ease of operation

General description:

SEWEC ozone generators of series **G-OXY** are manufactured in accordance with the standard **DIN19627**.

They are designed and equipped for fully automatic operation and are consisting of all units and components necessary for the economic production of ozone from oxygen.

All components are accommodated in a painted steel cabinet arrangement equipped with all relevant safety and venting devices.

The cabinet(s) are equipped with lockable doors.

If a door is opened accidentally during operation a safety door switch interrupts high-voltage supply immediately and the ozone production stops.

Ozone generator module:

The ozone generator modules are of vertical tubular design with the **unique up-down-flow-system** for highly-efficient **double-gap-discharge**.

The ozone module body is fabricated of stainless steel **AISI316Ti** carefully welded and finished. Its cooling water jacket is **thermal isolated** in order to prevent formation of condensate water.

Cooling water side they are pressure-proof up to 10 bar g.

Gas side they are pressure proof from -0,5 bar up to 3 bar g.

The dielectrics of high-graded borosilicate glass are indirectly cooled, which means that they are not in contact with water. Hence, in case of a glass break no cooling water can enter the gas room of the ozone generator module. The dielectrics are placed and assembled free of mechanical or heat generated tensions.

The **high-voltage-electrodes have integrated high-voltage fuses**. In the event of a glass break only the electrode concerned stops ozone production while the ozone generator remains in operation.

The complete ozone generator module(s) are designed for easy maintenance without any special tools.

Monitoring devices:

Monitoring and indicating devices are installed for all controls and safety features as required by DIN19627.

- Gas flow indication and monitoring
- Operating pressure min/max indication and monitoring
- Cooling water flow indication and monitoring
- Excess voltage monitoring
- Overcurrent in ozone generator module indication and monitoring
- Electrical failures indication and monitoring
- Other abnormal conditions that may lead to abnormal function of the ozone generator

Electrical power unit

The electrical power unit consists of resin-embedded high tension transformer(s) and frequency inverter. The high-tension transformer is an air-cooled dry type with **resin-embedded** high-voltage winding. This give high protection for the the winding against high ambient humidity, typical for installations in tropical areas.

The frequency inverter enables manual variation or automatic control of ozone production from 0...100% versus input signal 4...20mA (from external ORP controller or ozone monitor).

It is a **serial type from a worldwide leading manufacturer**, produced in large quantities and proven for reliable operation even under harsh environmental conditions. This guarantees highest availability around the globe.

Electrical control panel

The ozone generator is electrically controlled by a Siemens **PLC** with microprocessor. All operating parameters and failure diagnosis are displayed at a **touch panel**. Furthermore the electrical control includes signal lamps for operation and failure, switches as well as all electric components for fully automatic operation of ozone generator.

Faults and operating signals are wired on terminals for remote communication.