

OZAT® CFS

Second Generation Compact Ozone Generators

OZONE

The OZAT® CFS ozone generators are a range of small units which incorporate the same features as Ozonia's larger units such as AT dielectrics and IGBT power electronics.

APPLICATIONS

- Bottled water plants
- Cooling towers
- Aquaculture, etc.

MAIN CHARACTERISTICS

- Advanced technology
- Fully assembled and tested
- Compact dimensions

MAIN FEATURES

- Production rates from 53 to 690g O₃/h from oxygen
- Production rates from 37 to 470g O₃/h from air
- Robust industrial quality for reliability and long service life
- High ozone concentration at full-load
- Very compact dimensions for easy integration
- Low maintenance and service personnel requirement

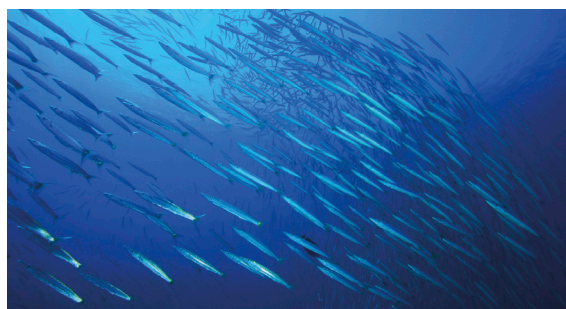
OZAT® CFS SPECIFIC TECHNOLOGY

The CFS range is Ozonia's second generation development of generators for small to medium sized ozone applications. The design is based on feedback from hundreds of operators and includes the latest technology to ensure continuous operation at full-load in industrial environments.

An OZAT® CFS unit is made-up from the ozone generator part, the power supply for the high voltage medium frequency supply to the generator, control system, process related control equipment and interconnections. The control system ensures flexible operation and allows integration into all types of plant concepts.

HOW IT WORKS

Ozone, the triatomic form of oxygen, is generated by recombining oxygen atoms with oxygen molecules. This process takes place in the gap between the dielectric layer on the high voltage electrode and an earth electrode in the ozone generator. When high voltage is applied to this arrangement a silent electrical discharge occurs in the gap which excites the oxygen molecules in the feed gas flowing through the gap which causes them to split and combine with other oxygen molecules to form ozone.



PRODUCT HIGHLIGHTS

- > High performance
- > Compact and versatile
- > Low-cost
- > High ozone concentration
- > Low specific power
- > User friendly
- > Easily integrated
- > Low service requirement

OZONIA

TECHNICAL DATA

OZAT® CFS-2G MODEL	Ozone Production (g/h)		Oxygen Requirement (Nm³/h)	Air Requirement (Nm³/h)	Outlet pressure (barg)		Cooling Water (m³/h)	Power Consumption (kW)
	Oxygen 10 wt%	Air 3 wt%	10 wt%	3 wt%	Oxygen 10 wt%	Air		
CFS-1	53	37	0.37	0.96	< 0.7	< 2.0	0.09	0.7
CFS-3	160	112	1.11	2.89	< 0.7	< 2.0	0.27	2.0
CFS-7	350	240	2.45	6.18	< 1.0	< 2.0	0.56	4.4
CFS-14	690	470	4.79	12.10	< 1.0	< 2.0	1.1	8.6

The recommended concentration range is between 6wt% and 12wt% when fed with oxygen and 3wt% to 5wt% when fed with dry air.

TECHNICAL FEATURES

- Voltage CFS-1 & CFS-3: 1 x 230/207 VAC ± 10%
- Voltage CFS-7 & CFS-14: 3 x 400/480 VAC ± 10%
- Frequency: 50 / 60 Hz
- Ambient temperature: +5...40°C
- Design altitude: < 1000 m.a.s.l.
- Humidity: RH < 65% (yearly average)
- Feed gas inlet pressure: 3 to 8 bar (g)
- Cooling water pressure: 2 to 6 bar (g)
- Cooling water inlet temp: 20°C / 68°F

MATERIALS

- Enclosure: powder coated mild steel
- In contact with ozone: stainless steel 316, PTFE, PVDF, Viton
- In contact with water: PE, brass, stainless steel 304/316

OPTIONS

- Choice of PLC (Siemens, Allen Bradley, Schneider)
- Bus system (Profi bus, Modbus, Ethernet, DeviceNet)
- Power-cut and lightning protection

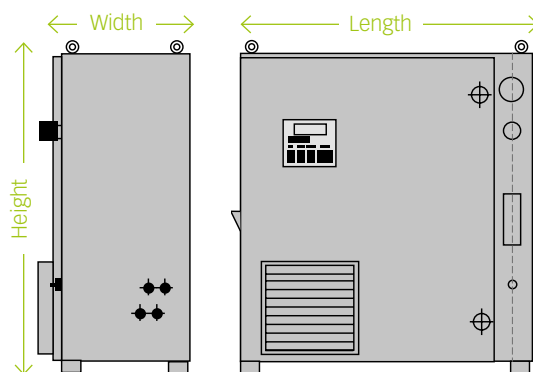
REMOTE CONTROL AND ALARMS

- Supply ON/OFF
- Enable REMOTE
- RESET
- Production STOP
- Gas valves OPEN
- Collective ALARM

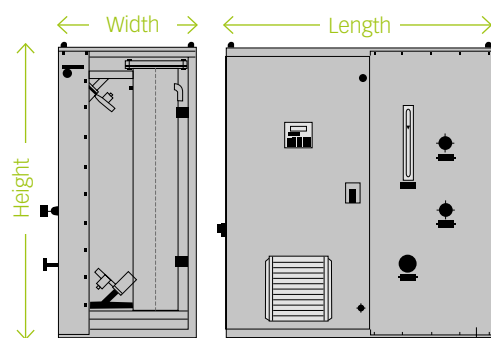
OZAT® CFS-2G MODEL	LxHxW (mm)	Weight (kg)
CFS-1	720 x 800 x 370	~70
CFS-3	720 x 800 x 370	~ 85
CFS-7	1000 x 800 x 450	~ 200
CFS-14	1300 x 1450 x 670	~ 420

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Types: CFS-1, 3 & 7 (typical)



Type CFS-14

Your local distributor: