

OZAT® CFV

OXYGEN & AIR - Fed Compact Ozone Generators

OZONE

The OZAT® CFV ozone generators incorporate Ozonia's patented "Advanced Technology" dielectric segments together with a state-of-the-art IGBT power supply unit.

APPLICATIONS

- Drinking water treatment
- Effluent treatment
- Process related use

MAIN CHARACTERISTICS

- Advanced technology
- Fully assembled and tested
- Compact dimensions

MAIN FEATURES

- Production rates up to 26kg O₃/h from oxygen
- Production rates up to 9kg O₃/h from air
- High ozone concentration at full-load
- Robust industrial quality for reliability and long service life
- Skid mounted with a small footprint for easy integration
- Minimum maintenance and service personnel requirement
- Choice of PLC with user friendly interface and optional bus
- Water cooled horizontal vessel type ozone generator

OZAT® CFV SPECIFIC TECHNOLOGY

The CFV range is Ozonia's latest development of generators for 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. A feature of the larger units is the fused dielectric tubes which makes them particularly suitable for remote service in drinking water plants.

An OZAT® CFV unit is integrated from the ozone generator, the power supply for the high voltage medium frequency supply to the generator, PLC control, process related control equipment and skid interconnections. The PLC system and optional bus 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 vessel. 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 versatile skid
- > Low-cost
- > High ozone concentration
- > Low specific power
- > User friendly
- > Easily integrated
- > Low service requirement

OZONIA

TECHNICAL DATA OZAT® MODEL	Ozone Production		Ozone Concentration		Outlet Pressure		Oxygen or Air Requirement		Cooling Water m³/h	Power Consumption kW
	Oxygen kg/h	Air kg/h	Oxygen wt%	Air wt%	Oxygen bar(g)	Air bar(g)	Oxygen Nm³/h	Air Nm³/h		
CFV-02 Oxygen - Air	1.32	0.75	10	3	< ~0.8	< ~1.5	9.20	19.3	1.9	14
CFV-03 Oxygen - Air	1.98	1.12	10	3	< ~0.8	< ~1.5	13.80	29.0	2.8	20
CFV-04 Oxygen - Air	2.64	1.50	10	3	< ~0.8	< ~1.5	18.40	38.7	3.7	26
CFV-05 Oxygen - Air	4.00	2.27	10	3	< ~0.8	< ~1.5	27.88	58.6	5.6	39
CFV-10 Oxygen - Air	8.21	4.65	10	3	< ~0.8	< ~1.5	57.0	120.0	11.5	78
CFV-15 Oxygen - Air	12.43	7.04	10	3	< ~0.8	< ~1.5	86.30	176.0	17.4	118
CFV-20 Oxygen - Air	15.81	8.97	10	3	< ~0.8	< ~1.5	109.87	231.0	22.0	151
CFV-30 Oxygen only	26.00	-	10	-	< ~0.8	-	180.0	-	35.0	257

The recommended concentration range can be selected between 6wt% and 12wt% (O₂)
The recommended concentration range can be selected between 3wt% and 5wt% (Air).

TECHNICAL FEATURES

- Ambient temperature: +5...40°C
- Design altitude: < 1000m.a.s.l.
- Humidity: RH < 65% (yearly average)
- Voltage: 3 x 360...495 VAC
- Frequency: 50 / 60 Hz
- 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: ANSI 316, PTFE, PVDF, Viton
- In contact with water: PE, brass, ANSI 304/316

OPTIONS*

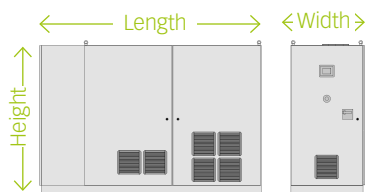
- Choice of PLC (Siemens, Allen Bradley, Schneider)
- Bus system (Profi bus, Modbus, Ethernet, DeviceNet)
- Power-cut and lightning protection

*Options for CFV-30 on request

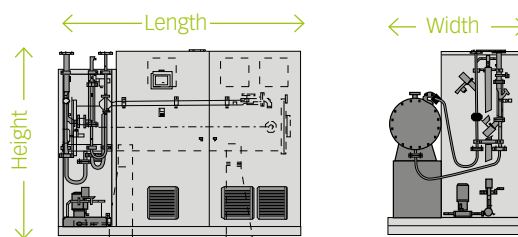
REMOTE CONTROL AND ALARMS

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

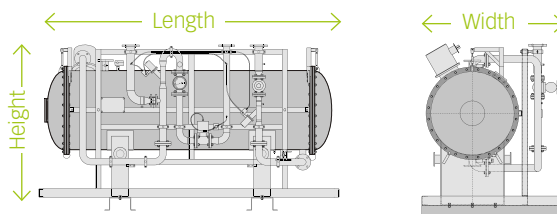
*CFV-30 Emergency Stop



CFV-30 PSU-Cubicle



OZAT CFV-02 to OZAT CFV-20



OZAT CFV-30 Vessel

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