

Ozonía* CFS

Compact Ozone Generators



Ozonia Technology:

Ozonia CFS



The **Ozonia CFS** range is designed for small to medium sized ozone applications and uses the same robust industrial ozone production technology as larger **Ozonia** systems.

Applications

- ▶ Drinking water
- ▶ Bottling water plants
- ▶ Cooling towers
- ▶ Aquaculture
- ▶ Food and beverage

The **Ozonia CFS** range is ideal for small to medium-sized ozone applications. Our 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 **Ozonia CFS** compact ozone generator includes the ozone generator, the medium-voltage power 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. This 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 power
- ▶ User friendly
- ▶ Easily integrated
- ▶ Low service requirement

Main Features

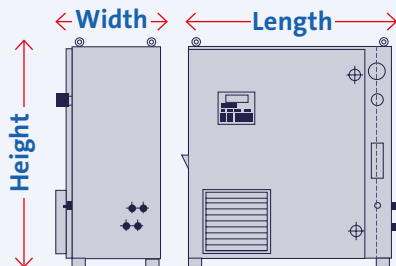
- ▶ Larger models feature the Ozonia SmartO3* controller with Modbus TCP/IP connectivity
- ▶ Robust Ozonia advanced technology (AT) dielectrics
- ▶ Very compact dimensions for easy integration
- ▶ Low maintenance and service personnel requirement
- ▶ High adaptability: Ozone production range 4-100%

Model	Ozone Production						Oxygen Requirement				Air Requirement	
	Oxygen 6 wt%		Oxygen 10 wt%		Air 3 wt%		Oxygen 6 wt%		Oxygen 10 wt%		Air 3 wt%	
	lb/d	g/h	lb/d	g/h	lb/d	g/h	scfm	Nm ³ /h	scfm	Nm ³ /h	scfm	Nm ³ /h
Ozonia CFS-1	3.86	73	2.91	55	1.96	37	0.53	0.85	0.24	0.39	0.6	0.96
Ozonia CFS-3	11.59	219	8.78	166	5.93	112	1.58	2.54	0.72	1.15	1.8	2.89
Ozonia CFS-7	26.98	510	19.89	376	13.86	262	3.69	5.93	1.63	2.61	4.2	6.74
Ozonia CFS-14	53.97	1020	39.74	751	27.67	523	7.39	11.86	3.25	5.22	8.4	13.49
Ozonia CFS-28	108.47	2050	79.47	1502	55.34	1046	14.82	23.78	6.5	10.44	16.79	26.98
Ozonia CFS-42	162.44	3070	119.21	2253	83.02	1569	22.20	35.63	9.74	15.64	25.20	40.45

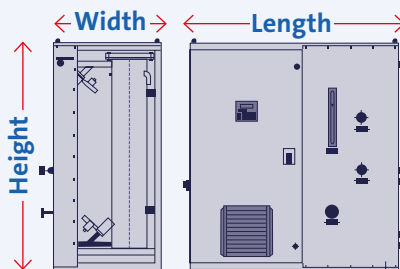
The recommended concentration range is between 6 wt% and 12 wt% when fed with oxygen and 3 wt% to 5 wt% when fed with dry air.

Ozonia CFS Technology

Ozonia CFS-1, 3 and 7



Ozonia CFS-14-42



Technical Features

- ▶ **Voltage Ozonia CFS-1, 3:** 1 x 230/207 VAC ± 10%
- ▶ **Voltage Ozonia CFS-7, 14, 28:** 3 x 400/480 VAC ± 10%
- ▶ **Frequency:** 50/60 Hz
- ▶ **Ambient Temperature:** +5 to 40°C
- ▶ **Design Altitude:** < 1,000 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)

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

Control

- ▶ **Ozonia SOC – Smart Ozone Controller**
- ▶ **Modbus TCP/IP Connectivity**
- ▶ **OPC UA**
- ▶ **Profinet**
- ▶ **Ozone Production On/Off**
- ▶ **Set Value (4 to 20 mA)**
- ▶ **Gas Valve Open**
- ▶ **7" TFT Color Touch Screen (800 x 480)**

Model	L x H x W		Weight	
	inch	mm	lb	kg
Ozonia CFS-1	28.4 x 31.5 x 14.6	720 x 800 x 370	154	70
Ozonia CFS-3	28.4 x 31.5 x 14.6	720 x 800 x 370	187	85
Ozonia CFS-7	39.4 x 31.5 x 17.7	1,000 x 800 x 450	440	200
Ozonia CFS-14	51.2 x 57.1 x 26.4	1,300 x 1,450 x 670	965	420
Ozonia CFS-28	53.5 x 57.1 x 34.4	1,359 x 1,452 x 874	1605	728
Ozonia CFS-42	61.3 x 71.0 x 38.4	1,557 x 1,802 x 974	2386	1082

Veolia's **Ozonia** ozone technology portfolio includes products from the laboratory scale to the largest ozone systems ever built. Veolia uses our extensive ozone technology experience to provide the industry's most reliable and robust products.

Our unique ability to deliver the most reliable and robust systems is why thousands of customers around the world have chosen **Ozonia** ozone systems.

We have been the ozone industry pioneer for over 25 years. Trust Veolia to deliver the highest quality ozone solutions to meet your treatment challenges.



- ★ Offices & Production Centers
- Offices

over
10,000
installations

7

product ranges
certified to
international
standards

over
25
years of
experience

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