

Ozgen CD

Carbon Ozone Off Gas destructors

Residual Ozone Converter (Chemical/Catalytic)

Vessels and filters, which come into contact with ozoniferous water, must be continuously vented via automatic vent valves.

The air that emerges contains ozone and must be passed via a vent line to a residual ozone converter. All of the residual ozone contained in the spent air has to be removed, regardless of the concentration.

Chemical/catalytic removal of residual ozone via extruded activated carbon has proven successful in practice over many years.

Structure & Function of the Chemical/Catalytic Residual Ozone Destructor.

The residual ozone destructor contains an activated carbon media which rests on an intermediate support. The ozoniferous spent air is introduced underneath the intermediate support. Small quantities of entrained water are separated out in the lower section and passed to the drain via an overflow.

A water barrier prevents the escape of air through the overflow. The ozoniferous air passes upwards through the activated carbon media where the residual ozone is converted, first chemically into CO_2 ($2 \text{O}_3 + 3\text{C} \rightarrow 3\text{CO}_2$) and then catalytically (because of the large surface area of the activated carbon) into O_2 .

The air, now free from ozone, passes upwards and out of the ozone destructor.

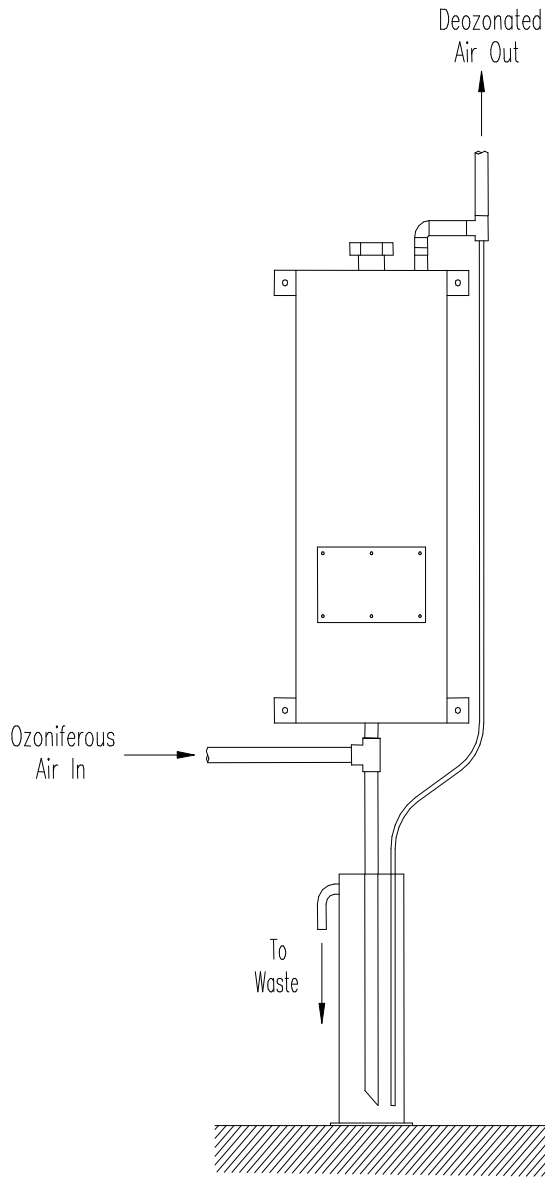
Mechanical and chemical destruction of the activated carbon's macro-structure creates powdered activated carbon which under certain conditions, can ignite. For this reason, the carbon must be replaced at regular intervals, the frequency of which depends on the quantity of ozone in the off gas. As a general guide, 12 months can normally be expected.

Please Note:

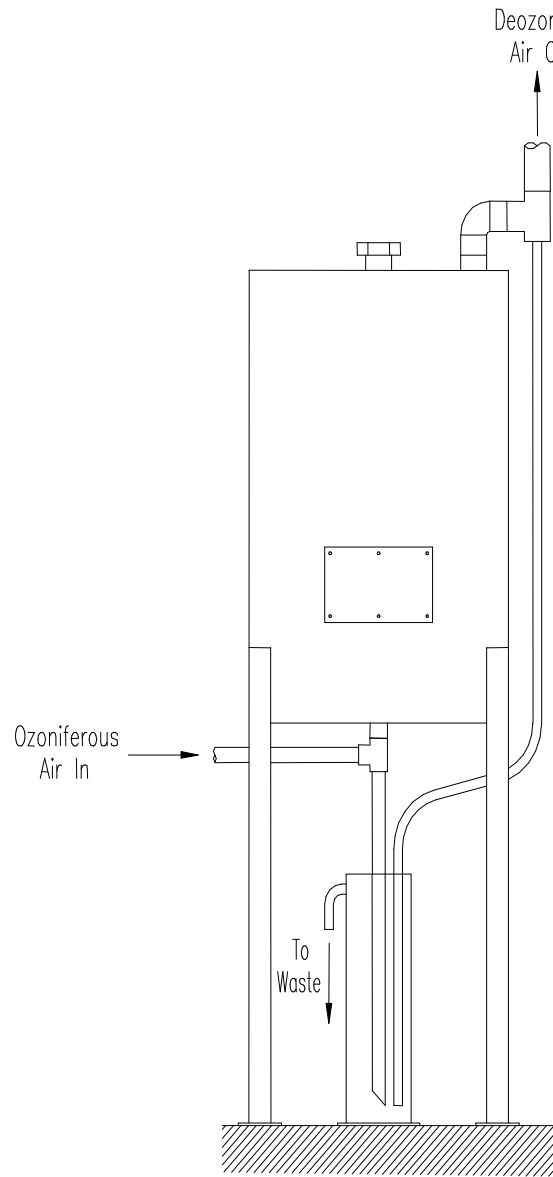
A foam eliminator should be installed prior to the ozone off gas destructor where there is the possibility of foam entering the off gas destructor unit.

Technical data:

Model	CD01	CD02	CD03	CD04	CD05
Max. Off gas flow - (at 0.1% w/w O_3) m^3/h	4	10	20	30	50
Media Volume Ltrs	20	60	100	180	300
Width x depth mm	200 x 200	350 x 350	350 x 350	450 x 450	600 x 600
Overall height approx. mm	800	800	1100	2000	2200
Ozone supply line NB mm	25	25	32	32	50
Air discharge line NB mm	25	25	32	32	50
Water discharge line NB mm	40	40	40	40	50
Overflow (flexible) NB mm	15	15	15	15	15



Models CD1, CD2 and CD3



Models CD4 and CD5

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