

ODT™ Series

Thermal Ozone Destruct Units

OZONE

Off-gases from a process containing trace levels of un-reacted ozone must be passed through a thermal or catalytic type vent ozone destruct unit prior to its release into the atmosphere.

APPLICATIONS

- Thermal ozone destruct units are suitable for all types of processes especially when catalytic poisons are present

MAIN CHARACTERISTICS

- The ODT units are compact and reliable low-cost destruct units

OZONE DESTRUCT TECHNOLOGY: SERIES ODT™

Exhaust gases from processes where ozone has been used invariably contain residual amounts of un-reacted ozone. Before this exhaust can be vented into the atmosphere, it is necessary to decompose the traces of ozone. In most countries it is prohibited to release even low-level concentrations into the atmosphere. There are various methods available to treat vent gas.

Two popular methods are thermal and catalytic destruction which are selected to match the process in question. The thermal destruct units raise the temperature of the off-gas to a level where the half-life of the ozone is reduced to milliseconds and in the catalytic units the ozone molecule decay rate is accelerated on the surface of the catalyst converting the ozone to oxygen.

HOW IT WORKS

The vent gases leaving the process are routed to the ODT™ vent ozone destruct unit. In the reaction chamber, the gases are heated to around 400°C which radically reduces the half-life of the ozone molecule and, consequently, accelerates the decomposition rate so that the ozone content in the gas stream leaving the ODT™ is well below the recognised safety limits (<0.1 ppm).

The temperature in the reaction chamber is thermostatically controlled.



PRODUCT HIGHLIGHTS

- > Very high ozone destruct efficiency
- > Processor controlled
- > Long service life
- > Virtually maintenance-free
- > Easy integration
- > Compact dimensions
- > High product integrity

TECHNICAL DATA

ODT™ MODEL	Flow		Ozone Level		Operating Pressure bar(g)	Electrical Rating (kW)	Voltage (V)
	Volume Nm ₃ /h	Mass kg/h	Inlet wt%	Outlet ppm			
ODT-003	3	3.75	< 1.5	< 0.1	< 0.45	0.80	1 x 230 ± 10%
ODT-006	6	7.50	< 1.5	< 0.1	< 0.45	1.80	1 x 230 ± 10%
ODT-012	12	15.00	< 1.5	< 0.1	< 0.45	3.20	3 x 400 ± 10%
ODT-020	20	25.00	< 1.5	< 0.1	< 0.45	5.30	3 x 400 ± 10%
ODT-030	30	37.50	< 1.5	< 0.1	< 0.45	8.00	3 x 400 ± 10%
ODT-060	60	75.00	< 1.5	< 0.1	< 0.45	16.00	3 x 400 ± 10%
ODT-120	120	150.00	< 1.5	< 0.1	< 0.45	32.00	3 x 400 ± 10%
ODT-180	180	225.00	< 1.5	< 0.1	< 0.45	44.00	3 x 400 ± 10%
ODT-180	240	300.00	< 1.5	< 0.1	< 0.45	64.00	3 x 400 ± 10%

TECHNICAL FEATURES

- Design standards: EN, IEC, ISO, SN
- Protection class: IP 42, NEMA 1
- Conformity: CE, UL
- Connection data: 1x230 / 3x400 V ±10%, 50 Hz/60 Hz

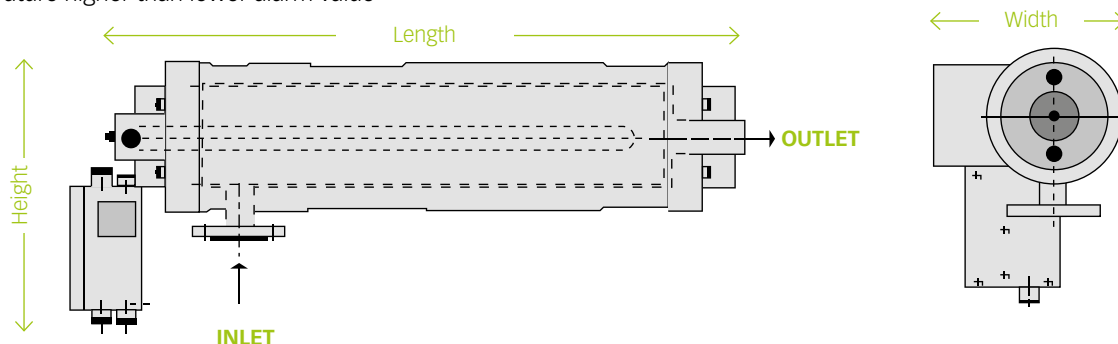
MATERIALS

- Heater: Incoloy 800
- Housing and pipes: stainless steel
- Insulation: mineral wool
- Frame: galvanized steel

REMOTE CONTROL AND ALARMS

- Unit ON/OFF
- Unit running
- Temperature lower than max. alarm value
- Temperature higher than lower alarm value

ODT™ MODEL	LxHxW (mm)	Weight (kg)	Flange DN-In (mm)	Out (mm)
ODT-003	660 x 325 x 250	11	20	33.7 x 2
ODT-006	660 x 325 x 250	13	25	42.4 x 2
ODT-012	890 x 405 x 250	15	32	48.3 x 2
ODT-020	1205 x 265 x 250	27	40	60.3 x 2
ODT-030	1240 x 265 x 250	30	50	76.1 x 2.6
ODT-060	1200 x 465 x 445	45	65	114.3 x 2.6
ODT-120	1600 x 560 x 595	100	100	139.7 x 2.6
ODT-180	1640 x 675 x 650	160	125	168.3 x 2.6
ODT-240	1645 x 620 x 650	180	150	205 x 3



CONTACTS

OZONIA Switzerland	salesCH@ozonia.com	+41 44 801 85 11
OZONIA France	salesFR@ozonia.com	+33 1 58 81 50 69
OZONIA Russia	salesRU@ozonia.com	+7 831 434 16 28
OZONIA North America	sales@ozonia.com	+1 201 676 2525
OZONIA China	salesCN@ozonia.com	+86 10 6597 3860
OZONIA Korea	salesKR@ozonia.com	+82 31 701 9036
OZONIA Japan	salesJP@ozonia.com	+81 3 5444 6361

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