



SAFETY

OZONE

ENVIRONMENT

PROCESS

← Applications

- Catalytic ozone destruct units are suitable for all types of processes where no catalytic poisons are present

← Main characteristics

- The IK™ units include a heater, reaction chamber, suction fan, control system and are an energy-efficient solution



Off-gases containing trace levels of un-reacted ozone must be passed through a thermal or catalytic type vent ozone destruct unit before venting to the atmosphere.

MAIN FEATURES

- Very high ozone destruct efficiency
- Low power consumption
- Long service life
- Virtually maintenance-free

- Easy integration
- Compact dimensions
- High product integrity

OZONE DESTRUCT TECHNOLOGY: IK™ Series

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

Normally, vent gases are saturated with water vapour and contain ozone levels up to 1.5 wt%. Before these gases can be treated it is necessary to heat them so that the relative humidity is less than 100% in order to prevent condensation forming on the surface of the catalyst.

Catalytic destruction does not require high temperatures and very rapidly decomposes ozone to oxygen. Care has to be taken to ensure that catalytic poisons do not enter the system. The IK™ units include the heater and reaction chamber.

TECHNICAL DATA

IK™ Model	Flow		Ozone Level		Operating Pressure mbar	Apparent Power kVA
	Volume	Mass	Inlet	Outlet		
	m³/h	kg/h	wt%	ppm		
IK-15	20	25	< 1.5	< 0.1	-35 ... 50	1.27
IK-20	40	50	< 1.5	< 0.1	-35 ... 50	1.52
IK-30	90	110	< 1.5	< 0.1	-35 ... 50	2.45
IK-40	150	190	< 1.5	< 0.1	-35 ... 50	3.62
IK-50	230	290	< 1.5	< 0.1	-35 ... 50	5.10
IK-60	340	430	< 1.5	< 0.1	-35 ... 50	6.78
IK-80	610	780	< 1.5	< 0.1	-35 ... 50	12.15
IK-100	960	1240	< 1.5	< 0.1	-35 ... 50	19.13
IK-120	1390	1790	< 1.5	< 0.1	-35 ... 50	27.28

► Standards

- **Design Standards:** EN, IEC, ISO, SN
- **Protection Class:** IP 54
- **Conformity:** CE
- **Connection Data:** 3 x 400 VAC ±10%, 50 Hz

► Materials

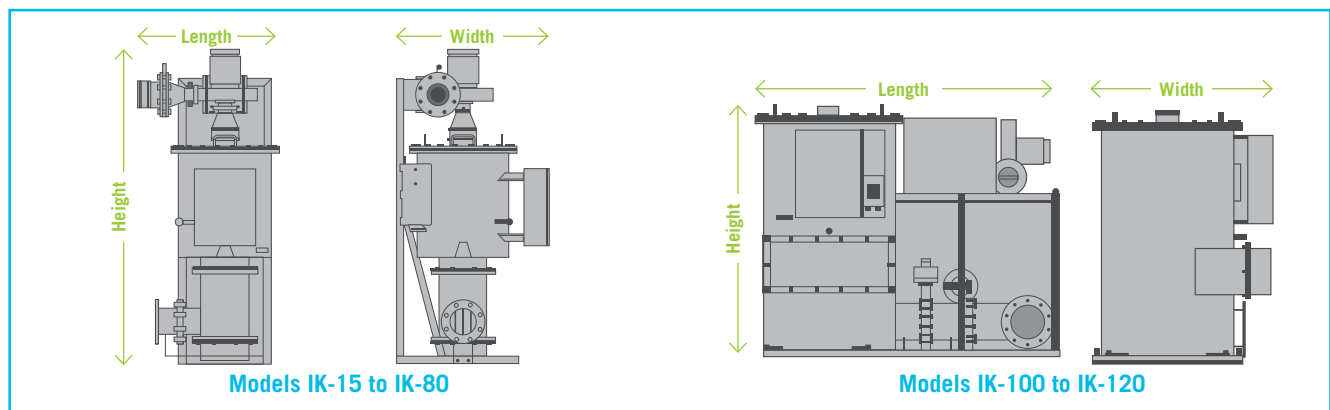
- **Heater:** Incoloy 800
- **Housing and pipes:** stainless steel
- **Fan:** aluminium
- **Catalyst:** metal oxide
- **Insulation:** mineral wool
- **Control Box:** mild steel
- **Frame:** galvanised steel

► Remote controls and alarms

- **Unit ON/OFF**
- **Enable REMOTE**
- **Unit running**
- **Temperature lower than max. alarm value**
- **Temperature higher than lower alarm value**
- **Over protection switch tripped**
- **All miniature circuit breakers are ON**

DIMENSIONS

IK™ Model	l x h x w			Weight kg
	mm			
IK-15	400	x 1970	x 634	65
IK-20	400	x 1996	x 634	89
IK-30	500	x 2000	x 735	124
IK-40	600	x 2100	x 850	175
IK-50	500	x 2040	x 910	236
IK-60	600	x 2040	x 1000	339
IK-80	800	x 2040	x 1250	463
IK-100	2290	x 1875	x 1360	790
IK-120	2390	x 2055	x 1560	1075



Contacts

www.DEGREMONT-TECHNOLOGIES.COM

Ozonia International Ozone	• info-ozoniaCH@degtec.com	• + 41 44 801 8511
Ozonia France	• info-ozoniaFR@degtec.com	• + 33 1 58 81 50 00
Ozonia North America	• info-ozonia@degtec.com	• + 1 201 676 2525
Ozonia Triogen UK	• info-triogen@degtec.com	• + 44 13 55 220 598
Ozonia Russia OOO	• info-ozoniaRU@degtec.com	• + 7 831 434 1628
Ozonia Korea	• info-ozoniaKR@degtec.com	• + 82 31 701 9036
Ozonia China	• info-china@degtec.com	• + 86 10 659 73 860
Ozonia Japan	• info-japan@degtec.com	• + 81 3 544 46 361

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