

HEADWORKS
BIOLOGY
SEPARATION
MEMBRANE
► DISINFECTION
BIOSOLIDS
SYSTEMS



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 the heater, reaction chamber, suction fan, control system and represent an energetically favourable solution



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 venting to atmosphere.

MAIN FEATURES

- | | |
|---|--|
| <ul style="list-style-type: none"> → Very high ozone destruct efficiency → Low power consumption → Long service life → Virtually maintenance-free | <ul style="list-style-type: none"> → Easy integration → Compact dimensions → High product integrity |
|---|--|

OZONE DESTRUCT TECHNOLOGY: Series IK™

Exhaust gases from processes where ozone has been used invariably contain residual amounts of un-reacted ozone. Before this exhaust can be vented to atmosphere it is necessary to decompose the traces of ozone. In most countries it is forbidden to exhaust even low concentrations to 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	Apparent Power
	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

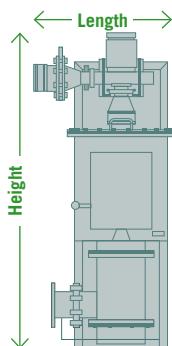
- Design Standards: SN-EN, IEC, ISO
- Protection Class: IP 42
- Conformity: CE
- Connection Data: 3 x 400 VAC ±10%, 50 Hz

► Materials

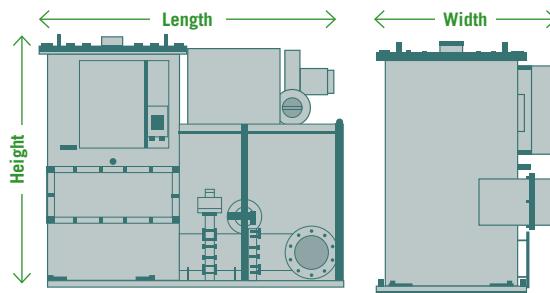
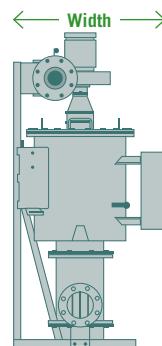
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|----------------------|-----------------|----------------|------------------|
| - Heater: | Incaloy 800 | - Catalyst: | metal oxide |
| - Housing and pipes: | stainless steel | - Insulation: | mineral wool |
| - Fan: | aluminium | - Control Box: |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

DIMENSIONS

IK™ Model	I x h x w			Weight		
	mm					
IK-15	400	x	1970	x	634	66
IK-20	400	x	1996	x	634	90
IK-30	500	x	2000	x	735	126
IK-40	600	x	2100	x	850	178
IK-50	500	x	2040	x	910	240
IK-60	600	x	2040	x	1000	346
IK-80	800	x	2040	x	1250	476
IK-100	2390	x	2055	x	1560	810
IK-120	2390	x	2055	x	1560	1105



Models IK-15 to IK-80



Models IK-100 to IK-120



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