# VOD Series RB™
## Thermal Ozone Destruct Units with Heat Recuperation

OZONE

**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.**

## APPLICATIONS

- **Thermal ozone destruct units are suitable for all types of processes where catalytic poisons are present**

## MAIN CHARACTERISTICS

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

## OZONE DESTRUCT TECHNOLOGY: VOD SERIES RB™

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 RB vent ozone destruct unit. In the reaction chamber the gases are heated-up 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 VOD is well below the recognised safety limits (< 0.1 ppm). In order to reduce the electrical requirement for heating the system incorporates a heat recuperation feature.

## PRODUCT HIGHLIGHTS

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

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| TECHNICAL DATA RB™ MODEL | Mass Flow (kg/h) | | Ozone Level | | Operating Pressure (barg) | Electrical Rating (kW) | Dimensions LxHxW (mm) | Weight (kg) |
|---|---|---|---|---|---|---|---|---|
| | Air | Oxygen | Inlet (wt%) | Oulet (ppm) | | | | |
| RB-10 | 100 | 110 | < 1.5 | < 0.1 | ±0.1 | 6.7 | 4330 x 1740 x 800 | 720 |
| RB-13 | 125 | 140 | < 1.5 | < 0.1 | ±0.1 | 7.7 | 4330 x 1740 x 800 | 730 |
| RB-16 | 160 | 175 | < 1.5 | < 0.1 | ±0.1 | 9.2 | 4370 x 1840 x 900 | 1030 |
| RB-20 | 200 | 220 | < 1.5 | < 0.1 | ±0.1 | 10.7 | 4370 x 1840 x 900 | 1050 |
| RB-25 | 250 | 275 | < 1.5 | < 0.1 | ±0.1 | 12.7 | 4370 x 1840 x 900 | 1070 |
| RB-32 | 315 | 350 | < 1.5 | < 0.1 | ±0.1 | 15.7 | 4970 x 1915 x 1000 | 1250 |
| RB-40 | 400 | 440 | < 1.5 | < 0.1 | ±0.1 | 18.7 | 4970 x 1915 x 1000 | 1280 |
| RB-50 | 500 | 550 | < 1.5 | < 0.1 | ±0.1 | 22.7 | 5050 x 1915 x 1000 | 1600 |
| RB-63 | 630 | 700 | < 1.5 | < 0.1 | ±0.1 | 27.7 | 5050 x 1915 x 1000 | 1670 |
| RB-80 | 800 | 880 | < 1.5 | < 0.1 | ±0.1 | 38.5 | 5540 x 2180 x 1100 | 1780 |
| RB-100 | 1000 | 1100 | < 1.5 | < 0.1 | ±0.1 | 46.5 | 5540 x 2180 x 1100 | 1850 |
| RB-125 | 1250 | 1400 | < 1.5 | < 0.1 | ±0.1 | 57.5 | 6090 x 2355 x 1200 | 2700 |
| RB-160 | 1600 | 1750 | < 1.5 | < 0.1 | ±0.1 | 72.5 | 6090 x 2355 x 1200 | 2800 |
| RB-200 | 2000 | 2200 | < 1.5 | < 0.1 | ±0.1 | 91.0 | 6380 x 2605 x 1300 | 3100 |
| RB-250 | 2500 | 2750 | < 1.5 | < 0.1 | ±0.1 | 115.0 | 6380 x 2605 x 1300 | 3300 |
| RB-315 | 3150 | 3500 | < 1.5 | < 0.1 | ±0.1 | 150.0 | 6580 x 2805 x 1300 | 4000 |
| RB-400 | 4000 | 4400 | < 1.5 | < 0.1 | ±0.1 | 180.0 | 7180 x 2905 x 1400 | 4900 |
| RB-500 | 5500 | 5500 | < 1.5 | < 0.1 | ±0.1 | 230.0 | 7280 x 3105 x 1500 | 5800 |

## TECHNICAL FEATURES

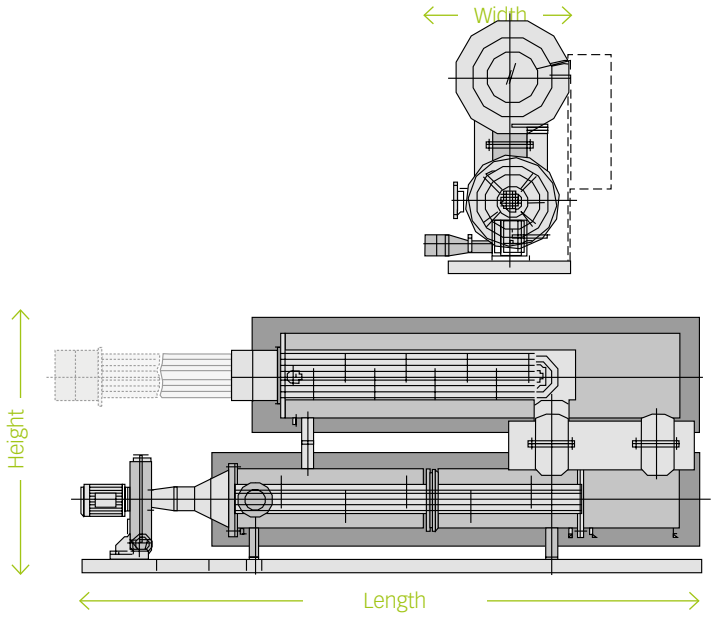
- Design standards: EN, IEC, ISO, SN
- Protection class: IP 42
- Conformity: CE
- Connection data: 3 x 400 V ±10%, 50 Hz

## MATERIALS

- VOD: Stainless steel
- Skid: Galvanised mild steel
- Fan: Galvanised mild steel
- Insulation : Mineral wool
- Cover sheet: Galvanised mild steel

## REMOTE CONTROL AND ALARMS

- 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
- Unit ON/OFF




## CONTACTS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|---|---|---|
| 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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