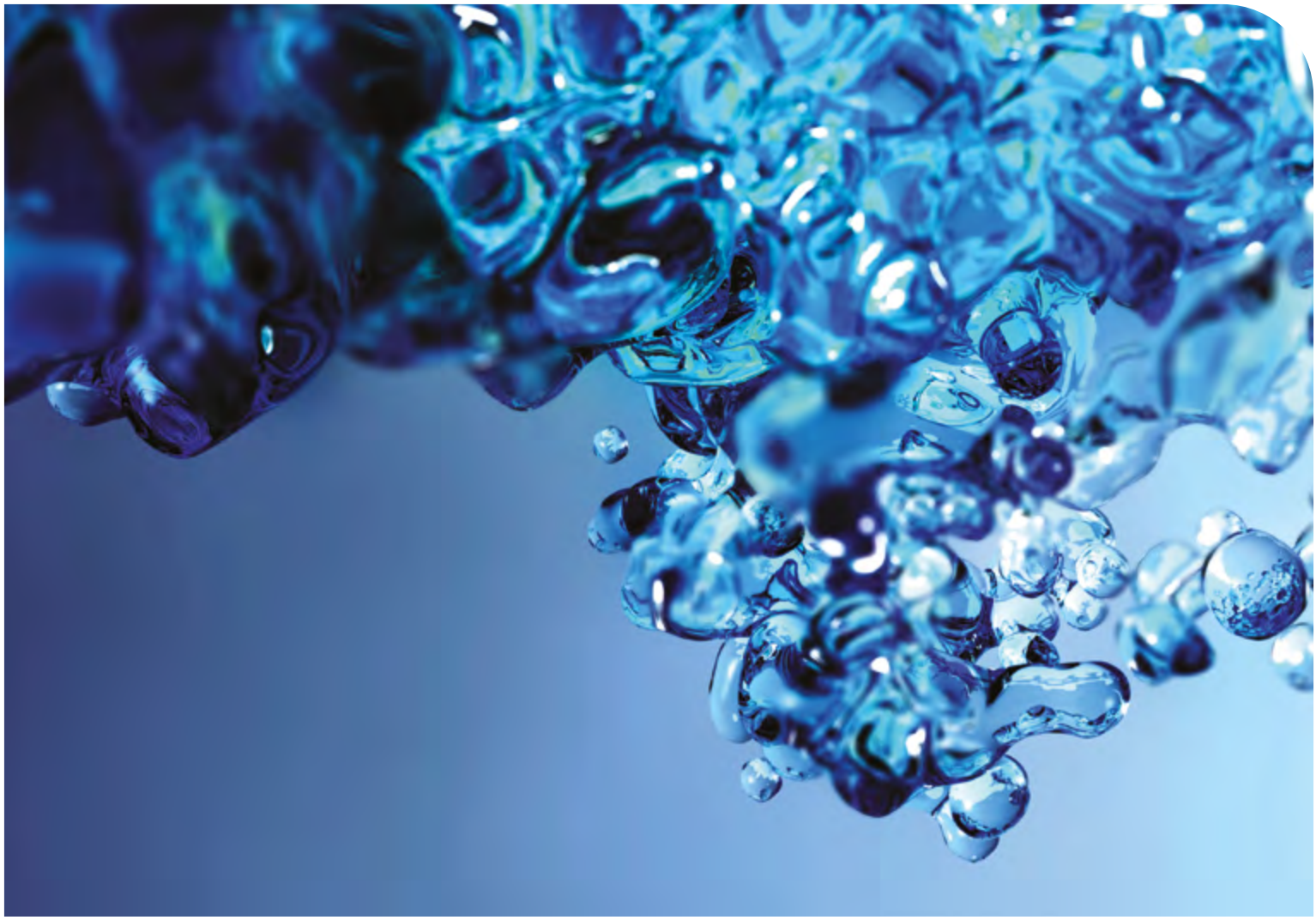


VEOLIA

Ozonia* Radial Diffuser

WATER TECHNOLOGIES

Ozonia Radial Diffuser Technology

Ozonia radial diffusers provide high-efficiency mass transfer in a compact footprint

Applications

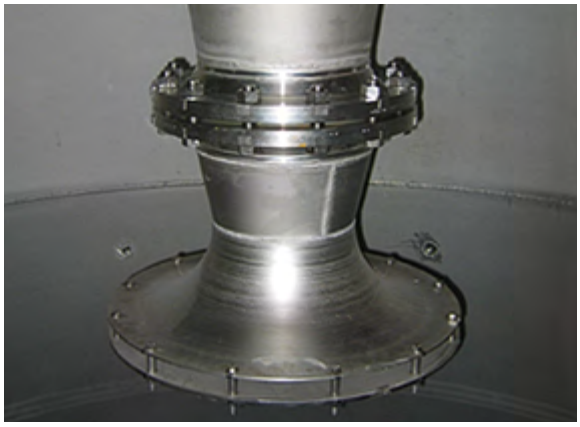
- Drinking water treatment
- Wastewater treatment
- Process water applications

Product Highlights

- Very high mass-transfer rate
- Homogeneous bubble formation
- Highly resistant component materials
- Extreme stability over long service periods
- Dynamic mixing/contacting
- Virtually maintenance-free
- Widely accepted technology

Main Characteristics

- High mass-transfer efficiency
- Even bubble formation
- Long service life



Ozonia radial diffuser technology can be used in wide range of applications. It is important that the ozone is introduced to the process in the most efficient way. The radial diffuser is an excellent alternative to traditional bubble column components such as porous diffusers and, in certain circumstances, is to be considered preferential. The application, process medium flow rate and ozone dose rate are critical factors which determine the size and positioning of the radial diffuser unit.

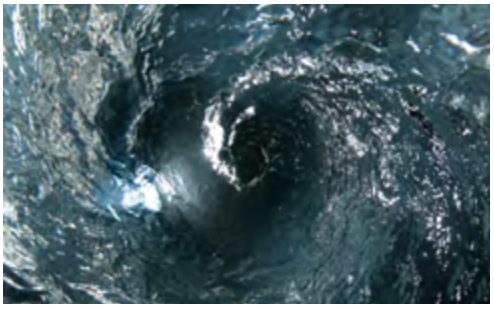
After leaving the generator the ozone containing feed gas is routed to the process as quickly as possible. Radial diffusers offer plant designers an elegant method of introducing ozone to process mediums and are particularly interesting when there are space restraints, risk of dogging or when a more dynamic mixing effect is required.

How it Works

The main component of a radial diffuser system is the injector which mixes the ozone containing feed gas with a relatively low motive water flow. In turn, this motive water flow is routed to a radial diffuser head. The throwing power of the diffuser head ensures that the motive water containing the ozone is intensively mixed with the process medium.

The radial diffuser elements are designed so that in addition to the ozonated motive water, a cloud of homogeneous small-sized bubbles are produced creating a large bubble/water contact area to ensure a maximum mass-transfer rate. Radial diffusers are easily integrated in pipe systems as well as in contact chambers. If the operating parameters allow, it is also possible to use the Ozonia mixing tube.

Ozonia Radial
Diffuser Technical Data



MODELS	Suction Volume (Nm³/h)	Water Motive Flow (m³/h)	Treated Water Flow (m³/h)
RD 50 to 1100	1 to 400	1 to 600	1 to 5 600

Suction volumes and motive flows depend on operating pressures. Please contact us for actual design parameters.

Technical Features

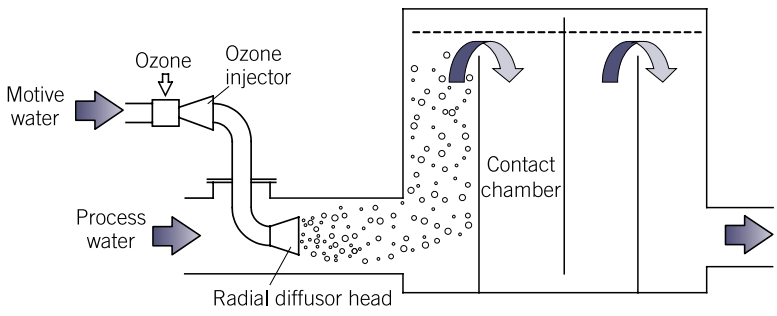
- **Gas:** mixed Oxygen/Ozone or Air/Ozone
- **Conformity:** IEC, ISO, CE, SN, ASME, SELO
- **Ambient temperature conditions:** 5 to 40° C

Advantages

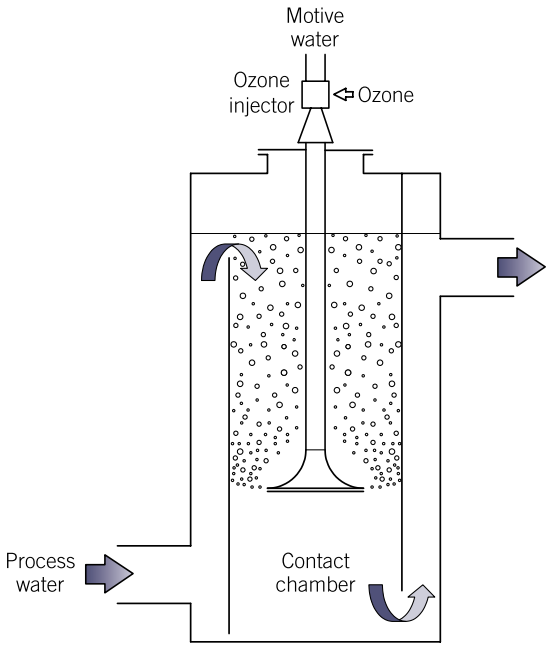
- **Over 95% mass-transfer efficiency**
- **Easy to install in pipelines or contacting tanks**
- **Highly reduced energy consumption**
- **Long service life**

Materials

- **Injector:** stainless steel 316L
- **Diffuser:** stainless steel 316L
- **Piping:** stainless steel
- **Other materials available upon request, depending on application**



Contact Chamber with Radial Diffuser



Inlet Pipe with Radial Diffuser

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