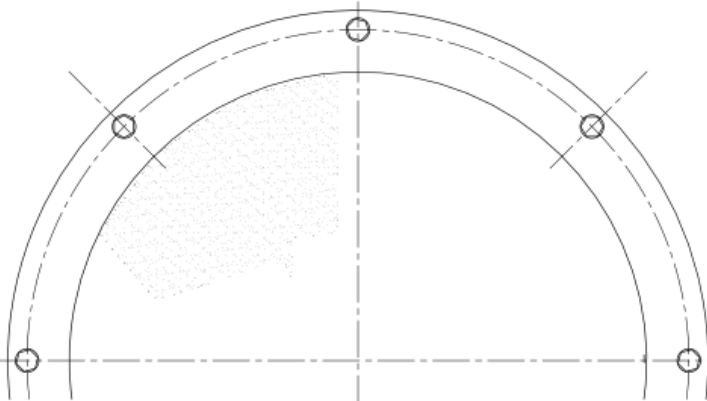
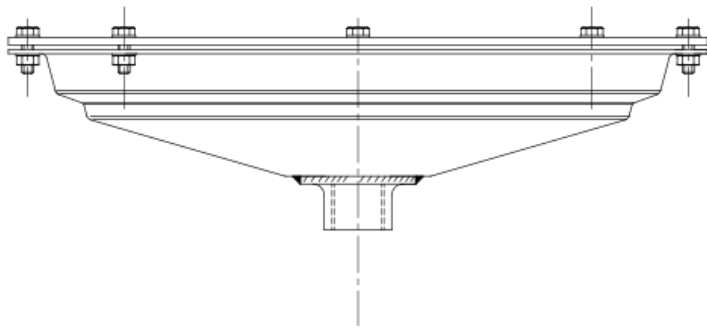


# Ozone Compatible Ceramic Disc Diffusers

## Ceramic Diffusers

Porous ceramics have traditionally been used to disperse compressed air, in the form of fine bubbles, into sewage for activated sludge biological purification processes, and ozone injection into drinking water. Mantec's range of alumina-based porous ceramics has been developed to both maximise the transfer efficiency and bring to the industry many unique features.

Mantec's ozone compatible ceramic disc diffuser has been developed specifically for the ozonation market where high concentrations of ozone gas can attack many conventional materials. It features a 300mm diameter homogeneous porous ceramic disc with a finely controlled porosity and pore size to produce a fine bubble pattern. The unit is designed to operate at a gas flow rate of between 2 and 8 Nm<sup>3</sup>/hour and terminates with a 3/4" BSPF threaded connection.



## Ozone Compatibility

Ozone is increasingly used to replace chlorine as an agent for killing bacteria and traces of pesticides in potable water. Unlike the chlorine traditionally used, it disappears quickly and leaves no aftertaste. It is typically dispersed into the water not as a pure gas but as an oxygen/gas mixture, usually delivered at a rate of 4 to 5 mg/litre through a series of fine bubble diffusers.

Mantec's porous ceramic materials have a long record of applications in the diffusion of gases into different water treatment processes and because the material is chemically inert, they are particularly suitable for ozone.

## Features of Ceramic Diffusers

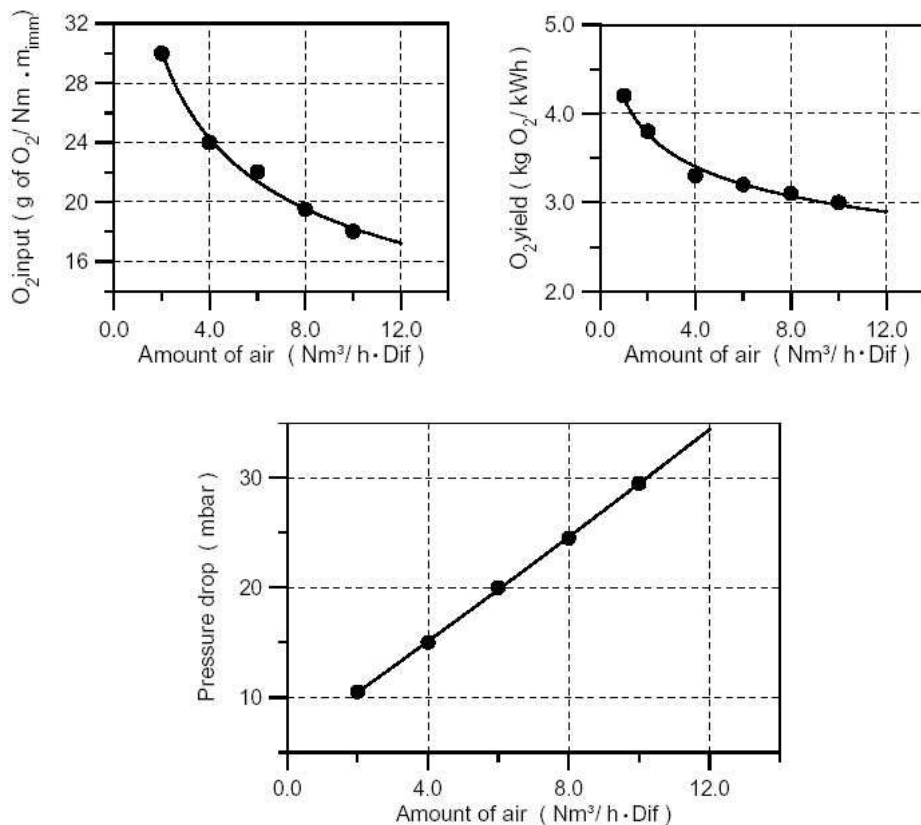
- High gas transfer efficiencies
- Available as tube or disc
- Controlled pore sizes (pores from 15 to 650 micron allows material selection to suit specific applications)
- Long history of accepted performance
- Ease of installation
- Compatible with many gases (Ozone, Oxygen, Carbon Dioxide) \*

\* Subject to correct seals being used.

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## Performance Data

Measurements were taken under standard conditions according German ATV M209 (clean water, water depth = 4,0 m, average density of aerators 1,1 diffusers per m2).



## Recommended air passage

Standard: 6 - 8 Nm<sup>3</sup>/hr per diffuser  
 Max: 12 Nm<sup>3</sup>/hr per diffuser  
 Min: 2 Nm<sup>3</sup>/hr per diffuser