

# Ceramic Tube Diffusers

Mantec's ceramic diffusers are used mainly for applications where continuous aeration is required by the process. They are installed in industrial plants where there are problems with the chemical resistance of membrane materials or for ozonation of drinking water plants. Ceramic diffusers are characterised by their high mechanical strength and good chemical resistance properties, also in the presence of solvents.

The sintered ceramic material guarantees good regeneration properties of diffusers. Regeneration may occur either by addition of formic acid during plant operation for the built-in condition or by flooding the aeration elements. In extreme cases, the diffusers may be cleaned with compressed air after disassembly. Heavy organic impurities are removed by baking.



The ceramic diffuser tubes are typically mounted on the distribution pipe with centering bosses and end caps by means of a tie rod with. The aeration piping is installed at the bottom of the aeration tank. Depending on the material chosen for the piping, the ceramic tube diffusers are fastened to the piping either directly or by means of tees.

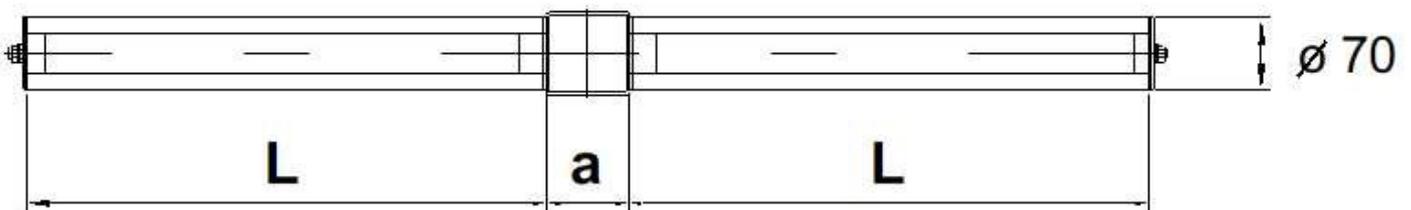


Mantec's ceramic tube diffusers are available in various lengths and diameters and are usually supplied without fittings. However, fittings can be offered upon request.

The photo on the left shows a typical installation of diffusers onto a distribution pipe. Typical configurations:

- 1 set of diffusers with an effective diffuser length of 2 x 500 mm
- 1 set of diffusers with an effective diffuser length of 2 x 750 mm
- 1 set of diffusers with an effective diffuser length of 2 x 1000 mm

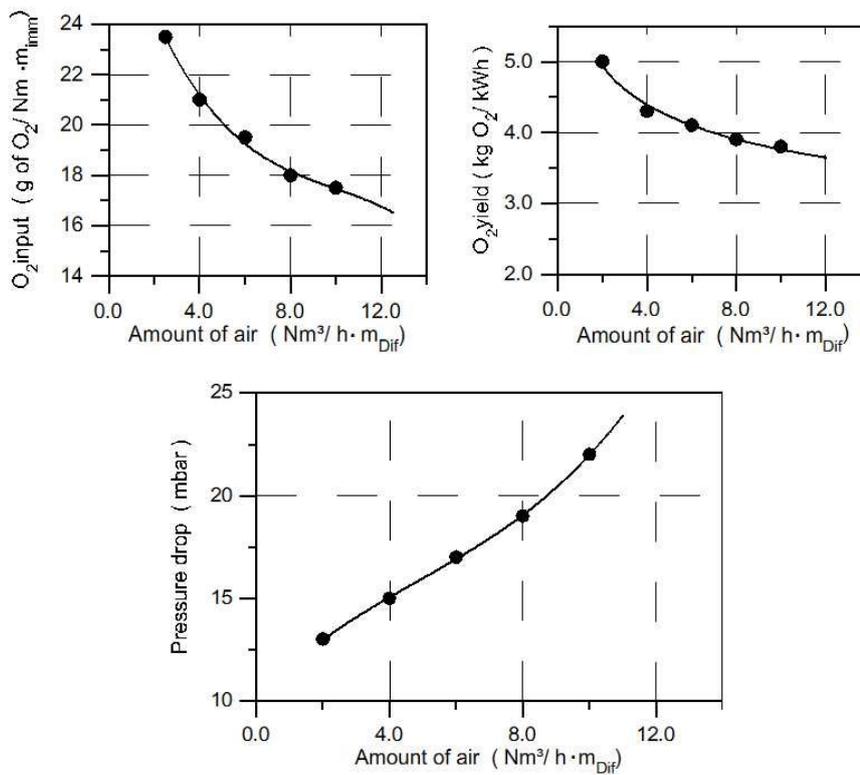
NB: Fittings are not normally supplied



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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 meter length of diffuser per m2).



## Recommended air passage

Standard: 6 - 8 Nm<sup>3</sup>/hr

Max: 12 Nm<sup>3</sup>/hr · mDf (for continuously running, for a few minutes up to 18 Nm<sup>3</sup>/ hr. mDf)

Mm: 2 Nm<sup>3</sup>/hr. mDf

(mDf - per metre length of diffuser)