



KTN
Kunststoff-Technik Neumarkt
GmbH

**protecting
the source of life**

**Components for
water- and wastewater treatment**

newair[®]
Tube diffuser EPDM

www.kt-n.com

Tube diffuser EPDM

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Product properties:

- low installation costs
- high operational safety
- low-maintenance
- low-cost construction
- application: - continuous
- intermittent



Dimensions

Type	Perforation length [mm]	Total length [mm]	Tube diameter [mm]	Diameter membrane [mm]	Wall thickness [mm]	Perforated area [m ²]	Total weight [kg]
63/2100 D	1000	1060	63	64 - 66	1,9 ± 0,15	0,180	1,3
63/2075 D	750	810	63	64 - 66	1,9 ± 0,15	0,135	1,1
63/2050 D	500	560	63	64 - 66	1,9 ± 0,15	0,090	0,8

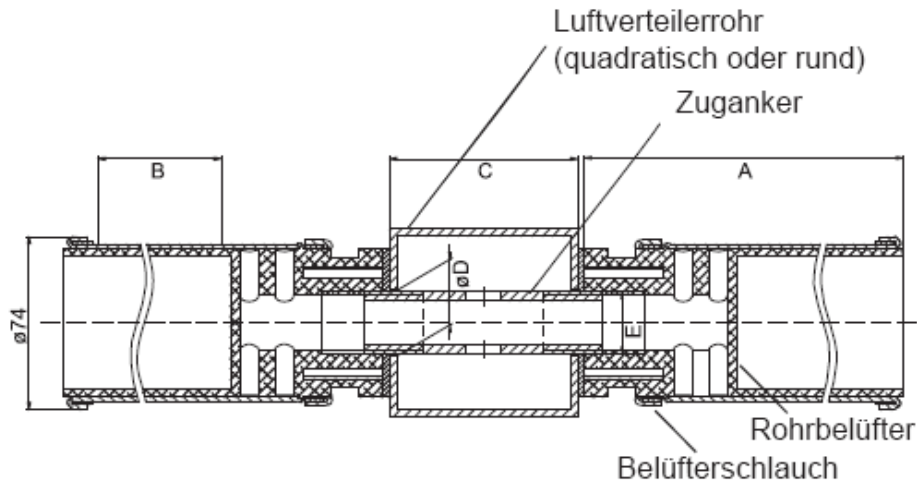
Connection	Colour coding adapter	Double nipple for square pipe 80 x 80 mm	Double nipple for square pipe 100 x 100 mm	Double nipple for round pipe DN 100
1" internal thread	blue	130 mm	150 mm	190 mm
¾" internal thread	green	130 mm	150 mm	190 mm

Material of the single components

Adapter	Support shell	Membrane	Clamps	Gasket	Double nipple
PP GF 30	PP	EPDM	V2A material: 1.4301	EPDM	V4A material: 1.4571

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Installation drawing



A	1060				810				560				Total length
B	1000				750				500				Perforation length
C	80		100		80		100		80		100		Square pipe
D	28	35	28	35	28	35	28	35	28	35	28	35	Hole diameter
E	3/4"	1"	3/4"	1"	3/4"	1"	3/4"	1"	3/4"	1"	3/4"	1"	Thread

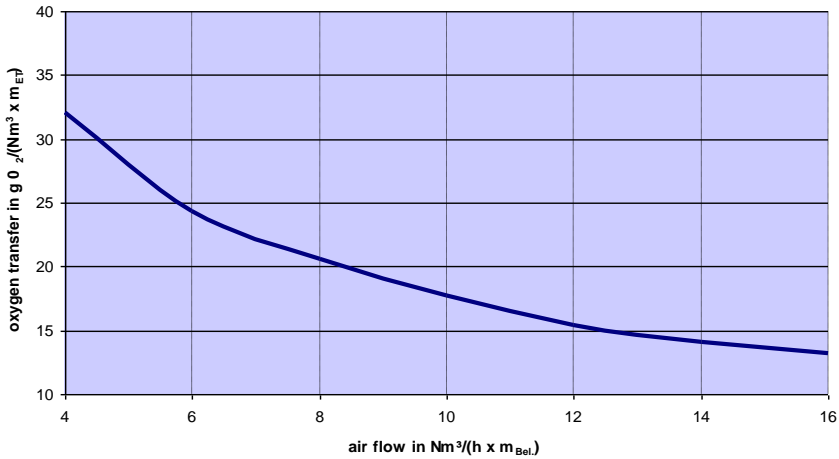
Material of the single components

Type of membrane	Standard	Weichmacherarm
Material	EPDM	EPDM
Colour	Black	black
Density	1,09 +/- 0,03 g/cm ²	1,17 +/- 0,02 g/cm ²
Tensile strength	> 6,0 MPa	> 7,0 MPa
Elongation at break	> 400%	> 400%
Tear strength	> 6 N/mm	> 4,5 N/mm
Hardness	40 +/- 5 Shore A	47 +/- 5 Shore A
Operation temperature	0 till 80°C	5 till 100°C
Application	Municipal wastewater	Municipal wastewater with high proportion of industrial

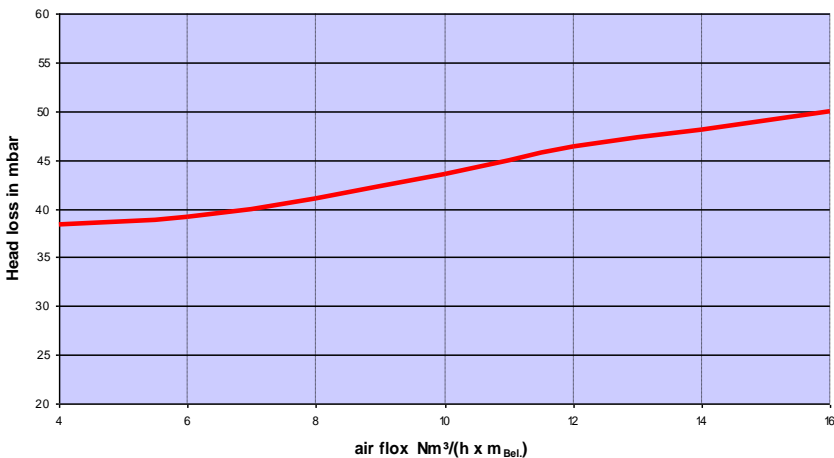
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Oxygen transfer and head loss

Oxygen transfer tube diffuser EPDM



Head loss tube diffuser EPDM



Comparable values are attainable only with the same experimental setup and the same conditions. Depending on the tank geometry, tube length, water depth and planar allocation the quoted values can change.

The measuring has been executed from the university Hannover according to the ATV – M 209 in pure water.

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Air flow

- the operation conditions depend on the elected material and perforation.
- individual perforations are possible after agreement.
- shutdown of operation is highly recommended for air flow rates lower than minimum rate
- overload air flow rate (e.g. cleaning) should not be applied longer than 10 min/day

Type	Operation condition [Nm ³ /h]	Short-time overload [Nm ³ /h]	Operation procedure	Application
63/2100 D	3 - 12	20	continuous intermittently	Municipal wastewater
63/2075 D	2 - 9	15	continuous intermittently	Municipal wastewater
63/2050 D	1 - 6	10	continuous intermittently	Municipal wastewater

Storage

Diffuser and/or rubber sleeves must be stored factory-packed in a dark, dry, ventilated and dust-free storage space according to DIN 7116. Avoid frost, heat, UV-radiation, dust and working which can cause damage of diffuser and/or packing. Do not store outdoors! The storage of rubber parts until installation/starting operation should not exceed one year. At on-site delivery, all rubber and plastic parts must be stored in their original packaging. Crates exposed to direct sunlight must be covered with tarpulin to protect against UV-radiation.

Maintenance

Diffusers can only be checked, while the activated sludge tank is out of work and empty. Therefore conventional cleaning must be done during the process. Formic acid is used very successfully against scale. To keep the pores open, formic acid is sprayed into the compressed air for a short time. Also a regular use with maximum air flow for a short time helps keeping the diffuser in good condition for a long time. (refer to Maintenance Manual)

Membrane lifetime

More than 5 years in municipal wastewater treatment plants, depending on waste water compound and operating method.