

Brandol® Rigid Tube Diffusers

Description

Brandol diffusers are used for the aeration of waste water and are composed of pure quartz, sand bonded with a resin binder to form a stable, mechanically strong porous element.

Due to the defined quartz grain size distribution as well as a controlled production method, Brandol diffusers have a remarkably homogeneous porous structure. This results in a very uniform air distribution and bubble release.

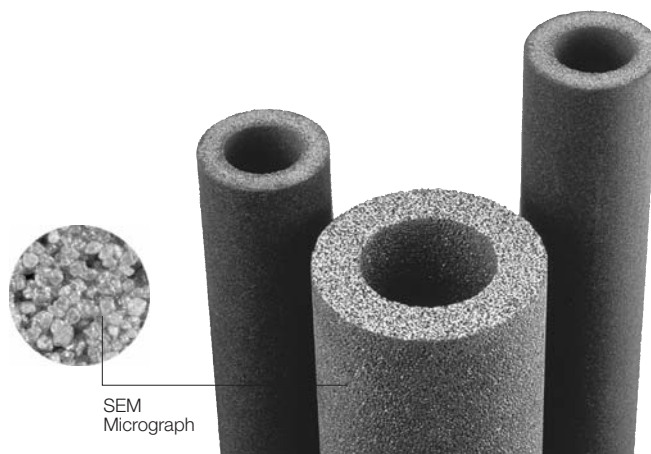
Applications

Brandol (BR)	Examples
Fine bubble aeration with BR 60 cylinders	Fine bubble aeration for activated sludge processes for nitrification and C-decomposition <ul style="list-style-type: none"> • municipal waste water treatment plants • industrial waste water treatment plants
Coarse bubble aeration with BR 120 cylinders	Coarse bubble aeration of waste water in grit chambers and mixing tanks: <ul style="list-style-type: none"> • waste water mixing avoiding sedimentation • homogenization of waste water feed

Further applications possible

Technical Data

Brandol (BR)	BR 60	BR 120
Mean pore size	75 µm	200 µm
Porosity	32 %	30 %
Head loss (air v/s water) at air load	20 mbar 8 m ³ / h * m	12 mbar 8 m ³ / h * m
Maximum air load	± 40 m ³ / h * m	± 40 m ³ / h * m
Recommended air load	8 - 12 m ³ / h * m	8 - 12 m ³ / h * m
Minimum air load	2.3 m ³ / h * m	2.3 m ³ / h * m
Bending strength (O-Ring compression)	> 12 MPa	> 12 MPa
Material density	1.6 g/cm ³	1.6 g/cm ³
Maximum temperature resistance	130 °C	130 °C
Dimensions (Do / Di)	70 / 40 mm	70 / 40 mm



General Information

Brandol diffusers can be regenerated by soaking in mineral acids or *in situ* by using bio-degradable acids such as formic acids.

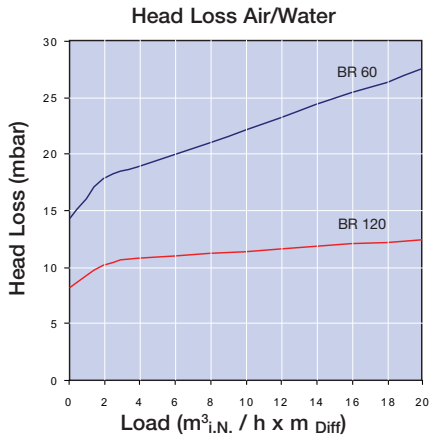
Brandol diffusers have a long service life and a low pressure drop. The resin bonded material is designed for many years of perfect operation.

Chemical Resistance¹

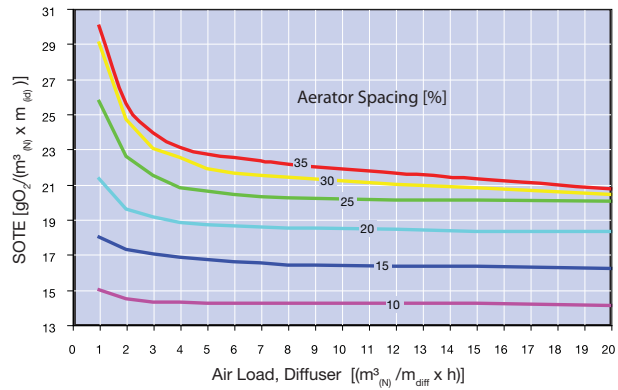
Brandol diffusers are resistant up to pH 9.5 against municipal waste water as well as against waste water from industrial sewage water plants. Brandol diffusers have a good chemical resistance against most solvents, hydrocarbons and acids. Chemicals that can attack the Brandol diffuser material are for instance aniline, calcium chlorate, furfural, potassium chlorate, potassium hydroxide, aqua regia, cresol, sodium chlorate, sodium hydroxide, sulfuric acid concentrate, perchloric acid, nitric acid (>10 %) and trichloroacetic acid (> 50 %).

¹ As end use conditions can vary it is the users responsibility to verify compatibility with their specific use conditions.

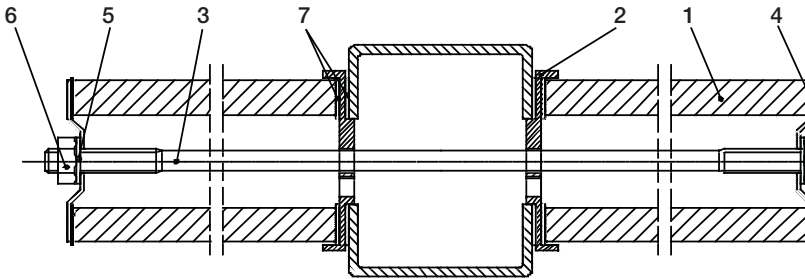
Flow vs Head Loss and SOTE



Spec. OTE, BR 60 Cyl. 70/40-750, Clean Water, 4 m i-depth:



Diffuser Set Diagram



Brandol 60 diffuser sets

Part No.	Quantity	Description
1	2	Cylinder Brandol 60 Do 70 / Di 40 mm
2	2	Centering piece, plastics
3	1	Tie rod, material SS 1.4571
4	2	Cylinder lid, material SS A4
5	2	Washer, Material SS A2
6	2	Hex nut, material A4
7	6	Gasket, material EPDM

Ordering Information

Part Number	Brandol (BR)	Type	Do / Di [mm]	Length [mm]	Area [m²]	Weight [kg]
88161700		60	70 / 40	500	0.11	2.1
88159800	Cylinder	60	70 / 40	750	0.16	3.1
88169100		60	70 / 40	1000	0.21	4.1
84251800		60	70 / 40	2 * 500	0.22	5.0
84251400	Diffuser Set	60	70 / 40	2 * 750	0.32	7.2
84281900		60	70 / 40	2 * 1000	0.42	9.4
88168800	Cylinder	120	70 / 40	500	0.11	2.1
88160500		120	70 / 40	750	0.16	3.1



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