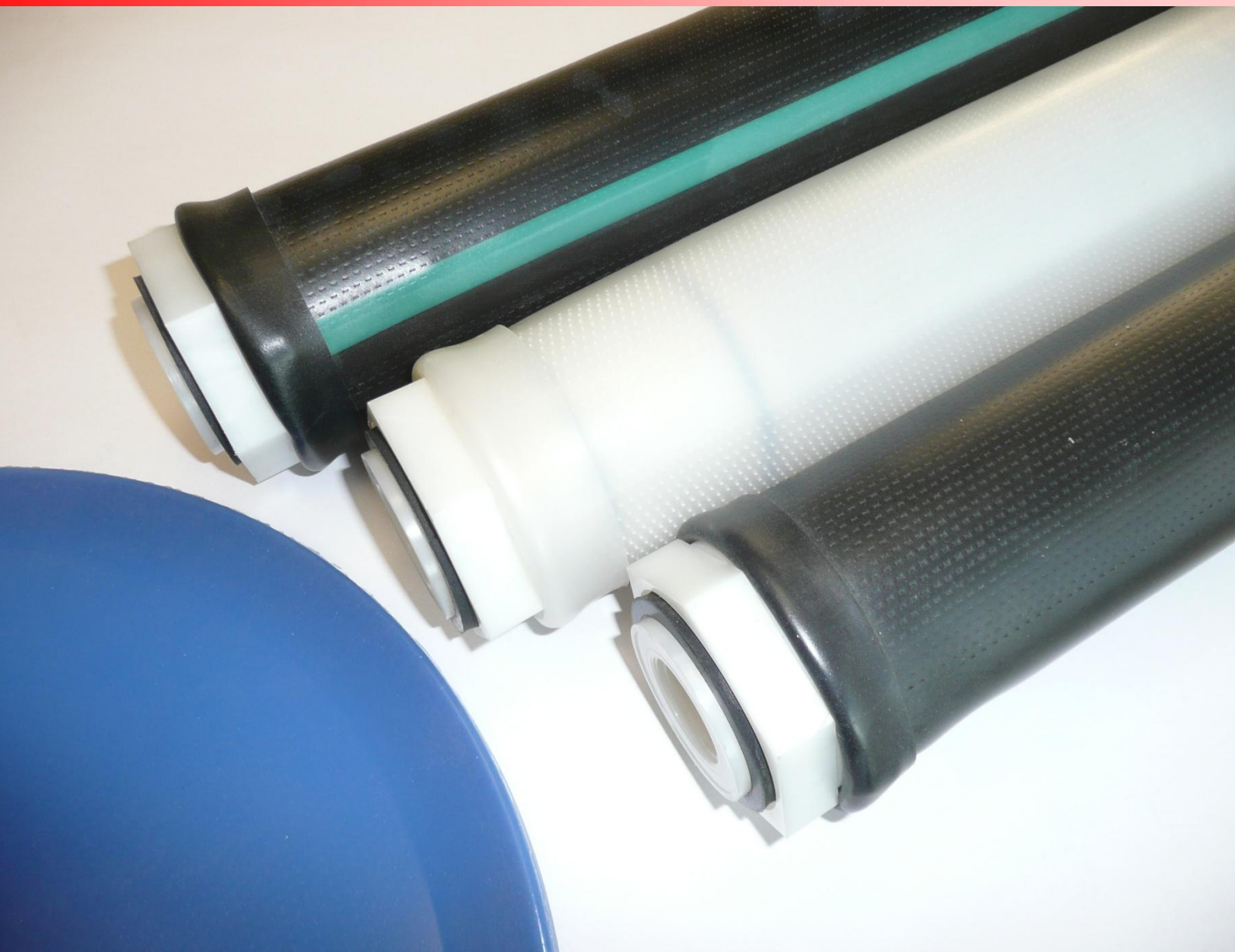


SANBOS



**SANBOS<sup>®</sup>**

**An efficient and cost-effective  
Pipe Aeration System**

## 1. SANBOS® Features

### Membrane

- Premium quality
- High solid prescription
- Antimikrobial performance
- Low pressure loss increase

### High energy cost saving

- No hardening and embrittlement
- Low tendency to form deposit
- Suited for industrial sewage plants
- Suited for an intermittently operation
- High oxygen exploitation
- Optimal bubble size
- Simple and quick installation
- Cost - effecive conversion of available systems

### For longstanding operation

- Flexible operation
- Extremely heat resistant
- Unplasticized
- Low deposit formation
- Atmospheric- and ozone-resistant
- Oil constant
- Antimikrobial
- High resilience
- Non-aging
- Poor flotation aeration module
- No sewage entry by hermetic seal



## 2. Application Area

This technical information applies to SANBOS Pipe Aeration Systems which are used for micro-bubble aeration:

- Sewage-/Bio-Sludge-Mixture in biological clarification plants
- Breed and culture ponds in aquafarms
- Man-made and natural body of water (rehabilitation/revitalization)

SANBOS material is authentic and recyclable.

## 3. Stability and Suitability

Stability	EPDM #05 Ethylen- Propylen- Dien	EPDM #04 Ethylen- Propylen- Dien	Silicone Elastomer	NBR Nitril- Butadien- Kautschuk	PU Polyurethan
Mineral Oil	-	-	-	+	+
Animal Oil	-	-	+	+	+
Vegetable Oil	-	-	+	+	+
Solvent	i	i	i	i	i

Sewage	EPDM #05 Ethylen- Propylen- Dien	EPDM #04 Ethylen- Propylen- Dien	Silicone Elastomer	NBR Nitril-Butadien- Kautschuk	PU Polyurethan
Local	+	+	+	+	+
Sugar Industrie	i	i	+	+	+
Butcher's Shops	-	-	+	+	+
Paper Industrie	i	i	+	+	+
Textile Industrie	i	i	i	+	+
Metal Industrie	i	i	i	+	+
Body of Water	+	+	+	+	+
Aquafarm	+	+	+	+	+

i = Information on specific substances in water are required

## Constant · Energy saving · Long-standing



## 4. Product range

### 4.1 Tubular membran EPDM #05

Material	<b>EPDM #05</b>	Ethylen-Propylen-Dien	
Colour	Black		
Density	1,09 ± 0,02	g/cm <sup>3</sup>	DIN 53479
Hardness	50 ± 5	Shore A	DIN 53505
Tear Resistance	14	MPa	DIN 53504
Elongation	725	%	DIN 53504
Tear Growth Resistance	10	N/mm	DIN53507A
Maximum Temperature	-40/+100	°C	
Maximum Air Volume	10	Nm <sup>3</sup> /m/h	
Air Volume Vperation	8	Nm <sup>3</sup> /m/h	
Inner Diameter	64,5 -0/+1,5	mm	Standard *)
Thickness	1,5 -0/+0,3	mm	Standard *)
Total Length	1060	mm	Standard *)
Perforated Lenght	1000	mm	Standard *)
Perforation/Slot Length	1,1	mm	Standard *)

\*) Other measurement on customer request.

Item Number                    SB-SM-EPDM-05-xxxx-xxxx  
 Total Length [mm]            \_\_\_\_\_  
 Perforated Length [mm]    \_\_\_\_\_



### 4.2 Tubular membran EPDM #04

Material	<b>EPDM #04</b>	Ethylen-Propylen-Dien	
Colour	Black		
Density	1,11±0,02	g/cm <sup>3</sup>	DIN 53479
Hardness	50 ± 5	Shore A	DIN 53505
Tear Resistance	>11	MPa	DIN 53504
Elongation	>800	%	DIN 53504
Tear Growth Resistance	>18	N/mm	DIN 53507
Maximum Temperature	-40/+100	°C	
Maximum Air Volume	10	Nm <sup>3</sup> /m/h	
Air Volume Operation	8	Nm <sup>3</sup> /m/h	
Inner Diameter	64,5±0,7	mm	Standard *)
Thickness	1,7±0.2	mm	Standard *)
Total Length	1060	mm	Standard *)
Perforated Lenght	1000	mm	Standard *)
Perforation/ Slot Length	1,1	mm	Standard *)

\*) Other measurement on customer request.

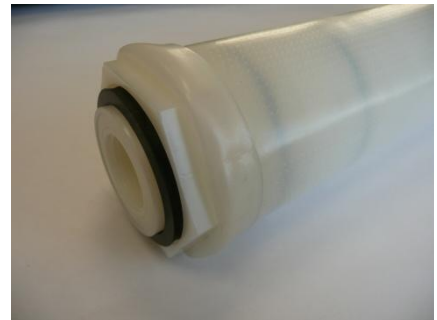
Item Number                    SB-SM-EPDM-04-xxxx-xxxx  
 Total Length [mm]            \_\_\_\_\_  
 Perforated Length [mm]    \_\_\_\_\_



## 4.3 Tubular membran #SILICONE

Material	<b>Silicone</b>	Elastomer	
Colour	transparent		
Density	1,17 ..1,19	g/cm <sup>3</sup>	DIN 53479A
Hardness	60 ± 5	Shore A	DIN 53505A
Tear Resistance	10,5 ± 15	%	DIN 53504-S1
Elongation	650 ± 15	%	DIN 53504-S1
Tear Growth Resistance	41 ± 10	%	ASTND624B
Maximum Temperature	80/200	°C	
Maximum Air Volume	10	Nm <sup>3</sup> /m/h	
Air Volume Operation	8	Nm <sup>3</sup> /m/h	
Inner Diameter	64,5 -0/+1,5	mm	Standard *)
Thickness	1,5 -0/+0,3	mm	Standard *)
Total Length	1060	mm	Standard *)
Perforated Length	1000	mm	Standard *)
Perforation/ Slot Length	1,1	mm	Standard *)

\*) Other measurement on customer request.

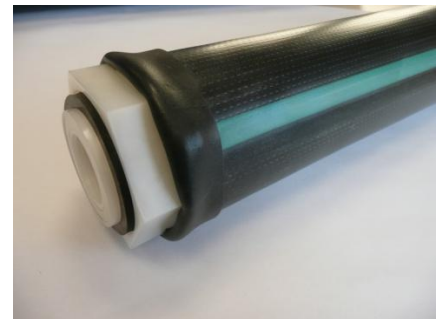


Item Number                    SB-SM-SILICOE-xxxx-xxxx  
 Total Length [mm]            \_\_\_\_\_  
 Perforated Length [mm]    \_\_\_\_\_

## 4.4 Tubular membran #NBR

Material	<b>NBR</b>	Nitril-Butadien-Rubber	
Colour	transparent		
Density	1,21 ± 0,02	g/cm <sup>3</sup>	DIN 53479
Hardness	60 ± 5	Shore A	DIN 53505
Tear Resistance	15	MPa	DIN 53504
Elongation	500	%	DIN 53504
Tear Growth Resistance	17	N/mm	DIN 53515
Maximum Temperature	60	°C	
Maximum Air Volume	10	Nm <sup>3</sup> /m/h	
Air Volume Operation	8	Nm <sup>3</sup> /m/h	
Inner Diameter	64,5 -0/+1,5	mm	Standard *)
Thickness	1,5 -0/+0,3	mm	Standard *)
Total Length	1060	mm	Standard *)
Perforated Length	1000	mm	Standard *)
Perforation/ Slot Length	1,1	mm	Standard *)

\*) Other measurement on customer request.



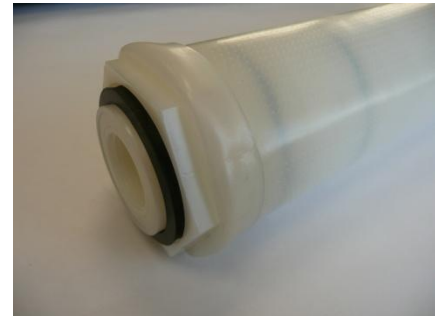
Item Number                    SB-SM-NBR-xxxx-xxxx  
 Total Length [mm]            \_\_\_\_\_  
 Perforated Length [mm]    \_\_\_\_\_

## 4.5 Tubular membrane PU

Material	PU	Unit	Standard
	Polyurethan		
Colour			
Density		g/cm <sup>2</sup>	DIN 53479
Hardness	85 ± 5	Shore A	DIN 53505
Tear Resistance	>3500 psi	Psi	DIN 53455
Elongation	>1200 psi	Psi	DIN 53455
Tear Growth Resistance	>150 psi	Psi	ASTM-D624B
Maximum Temperature	80	°C	
Maximum Air Volume	10	Nm <sup>3</sup> /m/h	
Air Volume Operation	8	Nm <sup>3</sup> /m/h	
Inner Diameter	64,5 -0/+1,5	mm	Standard *)
Thickness	0,6 ±0,1	mm	Standard *)
Total Length	1060	mm	Standard *)
Perforated Length	1000	mm	Standard *)
Perforation/ Slot Length	1,1	mm	Standard *)

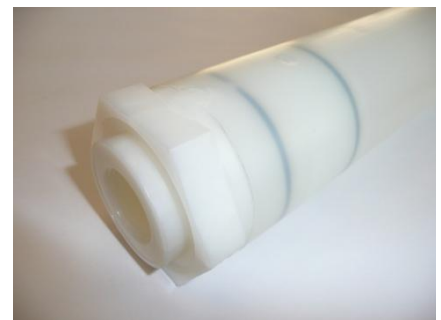
\*) Other measurement possible at customer request.

Item Number                    SB-SM-PU-xxxx-xxxx  
 Total Length [mm]            \_\_\_\_\_  
 Perforated Length [mm]    \_\_\_\_\_



## 4.6 Supporting Body

Material	PP	Polypropylen	
Colour	White		
Density	0,91	g/cm <sup>2</sup>	DIN 53479
Length	1000	mm	
Diameter	63	mm	
Connecting Threat	¾"		
Connecting Pin	44	mm	
Drilling Air Bar	45	mm	
Construction	Pipe-head design produced in one piece without weld		
Item Number	SB-STUKO-1000		



## 4.7 Gasket for Supporting Body

Material	EPDM		
Outdoor Diameter	55	mm	
Inner Diameter	44,5	mm	
Strength	4	mm	
Item Number	SB-FLADI-55		



## 4.8 Binder

Material	<b>Stainless steel</b>	1.4301	
Thread	10	mm	Both side
Perforation		mm	Middle
Length	210	mm	80mm *)
	230	mm	100mm *)
	250	mm	120mm *)

\*) Suitable for diffuser-width

Item Number                      SB-VERB—xxx  
 Total Length [mm]              \_\_\_\_\_



## 4.9 1-Ear-Clamp

Material	<b>Stainless steel</b>	1.4301
Suitable for	Pipe: 63 mm	
Item Number	SB-1OKL-63	



## 4.10 Montage Assistance

Material	<b>Steel</b>	ST38
Suitable for	SB-STUKO-1000	
Item Number	SB-MAULS	

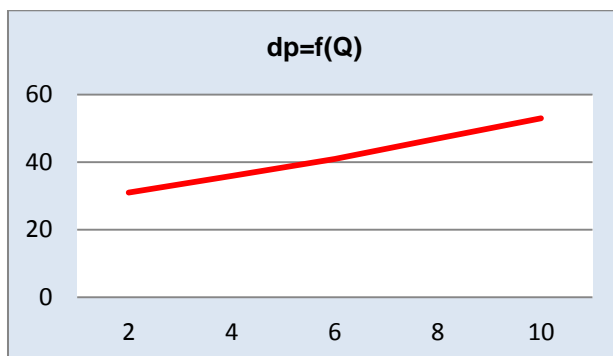


## 4.11 Hand Tool

Material	<b>Steel</b>	ST38
Suitable for	SB-1OKL-63	
Item Number	SB-HANDZA	

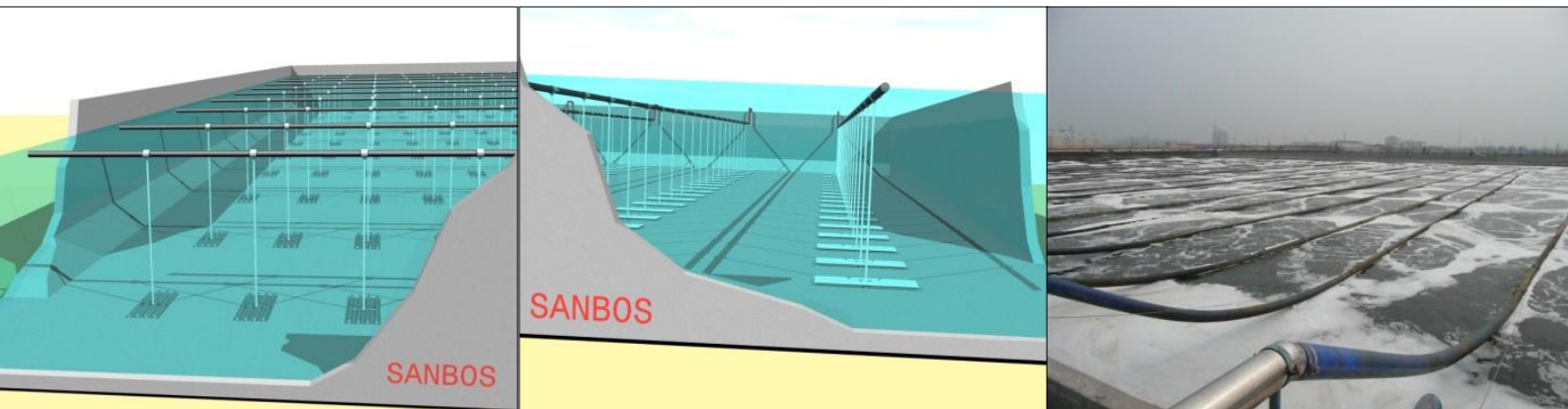


## 5. Decrease in Pressure



dp = Decrease in Pressure in mbar  
 Q = Flow in Nm³/h

## 6. Complete Aeration System Model SANBOS® FAS



Please contact the head office or your local field service employee for questions about design, identification of needs and price range.

We also supply components for other systems.

### Consultancy

Please visit our Website for further information [www.sanbos.com](http://www.sanbos.com)  
We also advise you personally.

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