

Radial Submerged Aerators

SCL



Power KW: 1,5 - 80

R.P.M.: 1450

An extremely flexible and versatile airing system for the treatment of wastewater and whenever mixing with air is required.

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*Dynamiek in
vloeistoftechniek*

Thanks to the extension of the channels are obtained: elevated oxygen transfer values, low noise levels, increased reliability, low cost and rapidity of installation are just some of the advantages that our SCL submerged aerators offer.

They can be fed by: atmospheric air; pure oxygen enriched air; pure oxygen alone and by other gaseous or liquid substances and do not necessitate the installation of complicated air diffusion systems. The aerator's submerged motor activates an impeller and the rotation of the impeller creates a void in the impeller's compartments thus allowing aspiration of air from a special aspiration chamber. The water/air mixture is compressed into the expulsion channels, which are extended and shaped in order to increase the contact time between air and water and the working area. Our SCL submerged aerator not only provides elevated performance in oxygen transfer and increased mixing ability, but it also consents a total airing of wastewater because, working as it does on the bottom of the tank, dead zones, characteristic of other systems, are avoided. Unlike other systems, the compactness of the SCL submerged aerator means that tanks do not need to be emptied or the plant shut down for installation or maintenance work. Thanks to its size and the materials with which it is constructed, the SCL submerged aerator is a versatile machine that can be used in many fields other than that of the treatment of wastewater and in all kinds of difficult or awkward working conditions.

GALLERY



Starting stages of a radial submersible aerator.



Starting stages of a radial submersible aerator.

USE

Bedu Pompen B.V. offers a wide range of products and solutions for the treatment and conditioning of water to satisfy the many and varied design and plant engineering demands. SCL radial submerged aerators are a fundamental component offering versatility, efficiency and ease of installation. The peculiarity of these machines is that they can be both self-sucking or pressurised by a compressor; in this second case the efficiencies considerably increase according to the water level and/or the quantity of air supplied.

These aerators are frequently used in wastewater treatment plants, especially during homogenisation and equalization, pre-airing stages, biological oxidation stages, oxidation-nitrication stages, sludge stabilization and post-airing stages.

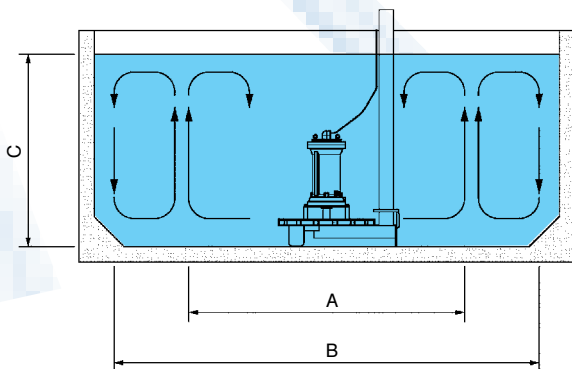
The SCL radial submerged aerators can be utilised for the flotation of greases, oils and solids, at the relevant stages of flotation.

The ease of installation afforded by these aerators means that they can be used in existing tanks, for strengthened oxidation, as well as in new plants, eliminating the need for expensive air distribution systems.

The SCL radial submerged aerators can be powered by pure oxygen, ozone, carbon dioxide and combustion fumes. This clearly means that they can be utilised during neutralization stages or when airing with high levels of oxygen content.

Recirculation of the air/water mixture in the tank is carried out by two different movements: the principal or primary movement A and the induced movement B.

WORKING AREA (m/FT)



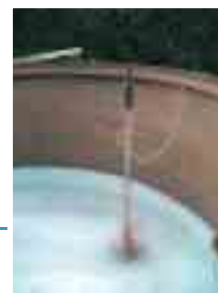
Type	A m/FT	B m/FT	C max m/FT
SC 10L	2,5 - 8,2	4,6 - 15,09	5 - 16,40
SC 30L	4 - 13,12	8,5 - 27,89	6 - 19,68
SC 75L	4,5 - 14,76	9,5 - 31,17	6 - 19,68
SC 100L	7 - 22,97	12 - 39,37	7 - 22,97
SC 180L	8 - 26,25	13 - 42,65	7 - 22,97
SC 300L	8,5 - 27,89	14 - 45,93	7 - 22,97
SC 400L	9 - 29,53	15 - 49,21	7 - 22,97
SC 500L	9,5 - 31,17	17 - 55,77	7 - 22,97
SC 800L	10 - 32,81	18,5 - 60,69	8 - 26,25



Starting stages of a radial submersible aerator.



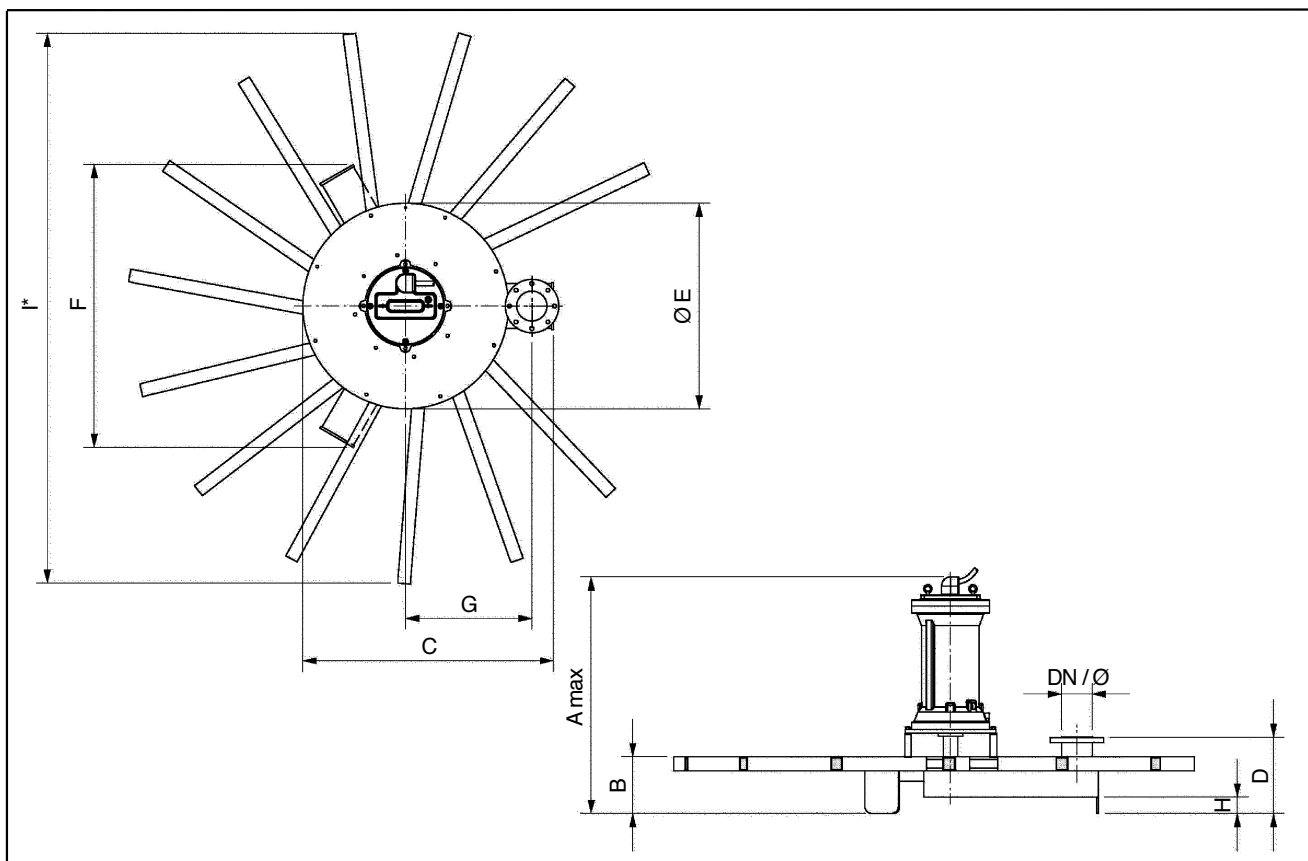
Installation of a submersible aerator type SCL



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TECHNICAL AND DIMENSIONAL CHARACTERISTICS

Type	Intake Pipe DN / Ø (mm)	Power KW	R.p.m. 50 Hz	Voltage V/3	Energy Absorpt. A (V 400 - 50Hz)	Weight (*) Kg	Dimensions (mm)								
							A	B	C	D	E	F	G	H	I
SC 10L	1"1/4	1,5	1.440	400	3,8	78	715	140	390	235	390	-	168	34	1.400
SC 10L	1"1/4	3,0	1.420	400	6,5	79									
SC 30L	80 / 88,9	4,0	1.390	400	9,3	203	988	246	725	336	490	828	400	100	1.512
SC 30L	80 / 88,9	5,5	1.428	400	11,5	210									
SC 75L	80 / 88,9	7,5	1.435	400	16,5	229	971	246	802	330	645	965	402	100	1.668
SC 75L	80 / 88,9	9,0	1.435	400	20,3	235									
SC 100L	100 / 114,3	11,0	1.430	400	22,7	272	1.250	246	802	330	645	965	402	80	1.668
SC 100L	100 / 114,3	15,0	1.445	400	34,5	395									
SC 180L	100 / 114,3	18,0	1.445	400	37,0	454	1.252	250	1.050	330	850	1.217	525	80	2.154
SC 180L	100 / 114,3	22,0	1.445	400	46,8	467									
SC 300L	125 / 139,7	30,0	1.450	400	62,1	552	1.615	260	1.171	360	960	1.321	590	80	2.600
SC 300L	125 / 139,7	37,0	1.460	400	67,0	586									
SC 400L	150 / 168,3	37,0	1.460	400	67,0	628	1.686	260	1.190	360	960	1.376	595	75	2.600
SC 400L	150 / 168,3	44,0	1.475	400	85,0	660									
SC 500L	150 / 168,3	44,0	1.475	400	85,0	678	1.322	260	1.208	360	995	1.376	595	75	2.630
SC 500L	150 / 168,3	55,0	1.475	400	95,0	696									
SC 800L	150 / 168,3	80,0	1.475	400	147,0	735	1.820	260	1.208	360	995	1.376	595	75	2.630

(*)Weights may change for applications in some countries



Installation stages of a submersible aerator type SCL



Submersible aerators type SCL installed in a wastewater treatment plant



Installation of a submersible aerator type SCL

INSTALLATION

The SCL submerged aerators are placed directly on the bottom of the tank without any anchoring or support structure. The weight of the aerator and the low centre of gravity provide increased stability. A steel rope linked to the electric motor allows easy handling of the submerged aerator and doing away with the necessity of expensive gangways or emptying of the tanks.

DOUBLE POLARITY MOTORS

Double polarity motors can be used in order to ensure a continuous mixing of the tank even when aeration is not necessary. These motors can be particularly effective when oxygen probes are used or in case of denitrification processes. In order to achieve aeration, the machine has to be employed at the higher rotation speed, while the lower rotation speed is dedicated to the mixing mode.

ACCESSORIES

All our submerged aerators are supplied with the following accessories:

- 10 meters of electrical wire
- humidity probe into the oil chamber
- thermal protections

For a correct installation the following accessories are available:

- stainless steel intake pipe AISI 304;
- protective grid for intake pipe;
- rope fixing hook for the intake pipe;
- aspiration silencer;
- Stainless steel rope AISI 304;
- Detection relay for humidity probe into oil chamber;
- External motor protection relay.

Aerators to meet your power and dimension requirements can be supplied by us at your specific request at 50 Hz or 60 Hz.

DYNAMIEK IN VLOEISTOFTECHNIEK

- Deskundig advies
- Een klantgerichte organisatie welke zich aanpast aan de eisen en wensen van uw organisatie
- Innovatieve en maatwerk oplossingen
- Breed assortiment vloeistofpompen van gerenommeerde merken
- Meer dan 5.000 pompen en 20.000 onderdelen op voorraad
- Een snelle en passende oplossing voor al uw vraagstukken
- Wij zien het belang in van uw processen en de continuïteit van uw bedrijfsvoering
- Snelle reactie- en levertijden
- Een eigen Technische Dienst met uitgebreide testfaciliteiten, werkend vanuit onze eigen werkplaats of bij u op locatie
- Reparatie, onderhoud en revisie van alle soorten en merken vloeistofpompen
- Storingsdienst 24 uur per dag, 7 dagen in de week

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