

Blowers

Side channel
compressors and
vacuum pumps



innovation > technology > future



The Side Channel Blower...

... or exhauster increases the pressure of the aspirated gas by the creation, in the peripheral toroidal channel, of a series of vortex caused by the centrifugal thrust of the impeller. Construction of the ring fans is based on the lateral ducts principle.

While the impeller is rotating, the vanes force the gas forward and, because of the centrifugal thrust, outwards, producing a helical motion.

During this motion, the gas is recompressed repeatedly with a consequent linear pressure increase along the length of the channel. The blowers can operate either as exhauster or compressor fans and are designed for continuous service.

Description

- Casing and impellers are made of aluminium alloy.
- The standard machines for air are manufactured in the so-called «CLOSE COUPLED» version; i.e. a flange mounted electric motor is bolted to the machine casing. The impeller, which is dynamically balanced, is fitted directly onto the motor shaft extension.
- The two-pole electric motors, designed for continuous operation, are available in three phase for all the powers shown in the catalogue and in single phase. They are manufactured according to IEC Specifications.
- The machines meet the requirements of the European Directives 2006/42 (Machines), 2006/95 (Low Voltage), 2004/108 (Electromagnetic Compatibility) and the applicable harmonised Standards.
- For the handling of gases other than air, e.g. steam, industrial gases and mixture of explosive gases, special gas tight units can be manufactured.
- In case of corrosive gases, all the internal parts can be treated or lined with protecting coatings.

Advantages

- Full die-cast aluminum construction grants the maximum sturdiness and flexible operation.
- The Side Channel Blower are suitable for all those applications requiring considerably higher pressures than that which can be achieved using centrifugal fans.
- Side channel exhausters are used in all those applications requiring an operating vacuum higher than the achievable by a fan, but not as high as to require the use of a vacuum pump.
- No lubrication is needed since there is no contact between static and rotating parts.
- The gas moving through the machine therefore remains uncontaminated and completely oil-free.

The other main advantages of using side channel machines are:

- easy installation
- dedicated silencers help to achieve a low noise level
- non vibration and therefore complete dynamic stability
- pulsation free discharge
- minimal maintenance

Accessories

A complete range of accessories is available for all machines: cartridge type filters for blowers / in-line filters for exhausters / flexible hoses / non return valves / pressure relief valves for blowers / vacuum relief valves for exhausters / pressure and vacuum gauges / acoustic enclosures.



Filters



**Non Return
Valves**



**Pressure
Relief Valves**

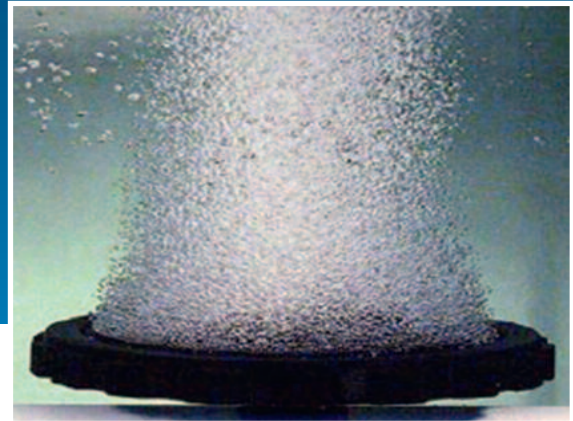


Flexible hoses

Fine bubble membrane air diffusers



Membrane air diffusers: rubber surface with microholes that act like one valve, dilating themselves in order to let out the air but closing up once the flow is interrupted preventing to the water to enter.



Activated sludge process is the main stage of modern wastewater treatment technology.

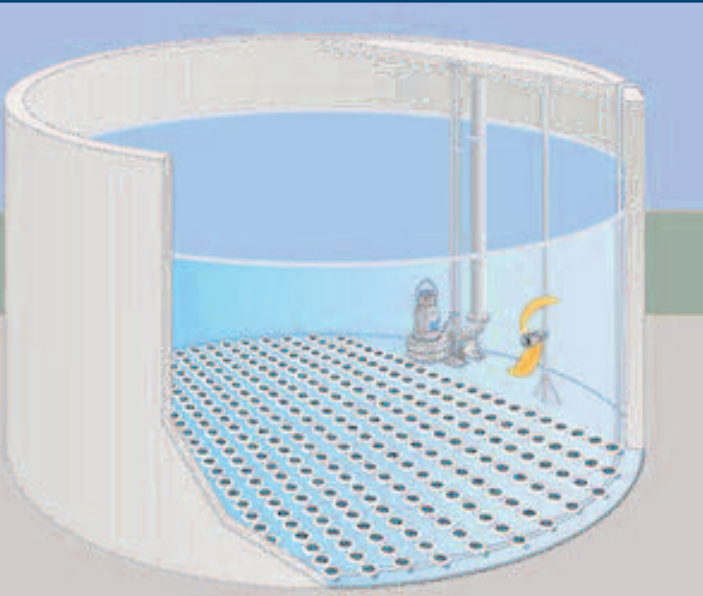
Aeration systems which are key component of the activated sludge process serve two purposes; satisfy oxygen demand and provide sufficient mixing turbulence to keep solids in suspension.

Oxygen must be provided in biological activated sludge wastewater treatment systems to satisfy several types of demands:

- Organic oxygen demand that can be further divided into oxygen required for cell synthesis and oxygen required for endogenous respiration.
- Biological oxidation of ammonia nitrogen
- Oxidation of certain inorganic materials that may be present in the wastewater.

Tubular diffusers

Tubular diffusers: rubber surface with microholes that act like one valve, dilating themselves in order to let out the air but closing up once the flow is interrupted preventing to the water to enter.



Applications

- Wastewaters treatment
- Intermittent operation capability
- Clean water treatment
- Sludge stabilization
- Aeration of fish pond
- Aeration of streams and lakes

A Worldwide Group at your service

seko has been a significant manufacturer of metering pumps and dosing systems for over 40 years. This long activity allowed seko to acquire a vast experience in diversified applications and to confirm its international success in many industrial fields through the supply of reliable solutions for the dosing, injection and transfer of liquids

Today **seko** is an International Group, developing, manufacturing and delivering its products in more than 50 countries, through its 16 subsidiaries and an extended network of distributors, agents and authorized dealers



BRAZIL

■ Seko do Brasil Comercio de Sistemas de Dosagem Limitada

03170-050 São Paulo (SP)
Phone: +55 11 2606 9878
Fax: +55 11 2606 9878
sekobrasil@sekobrasil.com.br
www.sekobrasil.com.br

CHINA

■ Seko China Ltd

072750 Hebei
Phone: +86 312 552 0904
Fax: +86 312 552 0901
china@seko.com
www.sekochina.com

DENMARK

■ Seko Denmark

DK-4930 Maribo
Phone: +45 5475 7545
Fax: +45 5474 7545
info@seko.com

FRANCE

■ Seko Lefranc-Bosi S.A.

77435 - Marne La Vallée Cedex 2
Phone: +33 1 6005 9060
Fax: +33 1 6480 4104
lefrancbosi@lefrancbosi.com
service.commercial@seko.fr
www.lefrancbosi.com

GERMANY

■ Seko Deutschland GmbH

55252 Mainz - Kastel
Phone: +49 6134 2858 10
Fax: +49 6134 2858 29
info@seko-messtechnik.de
www.seko-germany.com

ITALY

■ Seko Spa

Via Salaria Km. 92,200
02010 S.Rufina - Rieti
Phone: +39 0746 605801
Fax: +39 0746 607072
sales@seko.com

ITALY

■ Seko Spa

[Process & Sytems]

Via Di Vittorio, 25
20068 Peschiera Borromeo - Milano
Phone: +39 02 97372411
Fax: +39 02 55301744
info.psd@seko.com
info@seko.com

ROMANIA

■ Seko Sieta S.r.l.

400393 Cluj-Napoca
Phone: +40 264 415 251
Fax: +40 264 415 622
info.dpro@seko.com

RUSSIA

■ OOO Seko

129347 - Moscow
Phone: +74 99 182 52 36
Fax: +74 99 182 52 36
sekorussia@seko.com
www.sekorussia.ru

SINGAPORE

■ Seko Dosing Systems

Asia Pacific Pte Ltd

608838 Singapore
Phone: +65 6515 6996
Fax: +65 6515 5079
asiapacific@seko.com

SOUTH AFRICA

■ Seko Southern Africa

(PTY) Ltd

Kyasand - Johannesburg - Gauteng
Phone: +27 11 704 6589
Fax: +27 11 704 6588
sales@sekosa.co.za

SPAIN

■ Seko Ibérica Sistemas de Dosificación S.A.

08960 Sant Just Desvern - Barcelona
Phone: +34 93 4802 570
Fax: +34 93 4802 571
sekoiberica@sekoiberica.com

SWEDEN

■ Seko Sweden

26123 Landskrona
Phone: +46 418 448 482
Fax: +46 418 448 483
info@seko.com

TURKEY

■ Seko Endüstriyel Pompalar ve Proses Sistemleri San. ve Tic. Ltd. Şti.

Kartal Istanbul
Phone: +90 216 353 2542
Fax: +90 216 353 1450
info@seko.com.tr
www.seko.com.tr

UNITED ARAB EMIRATES

■ Seko Middle East FZE

P.O. Box 42090
Hamriyah Free Zone Phase II,
Sharjah
Phone: +971 6 5138700
Fax: +971 6 5269188
info@seko.ae
sales@seko.ae

UNITED KINGDOM

■ Seko UK

Chemical Controls Ltd

Harlow, Essex - CM19 5JH
Phone: +44 1279 423550
Fax: +44 1279 423993
seko.uk@seko.com
www.sekouk.com

USA

■ Seko Dosing Systems Corporation

Tullytown - PA 19007
Phone: +1 215 945 01 25
Fax: +1 215 945 09 37
sales@sekousa.com
www.sekousa.com

For more information
www.seko.com

