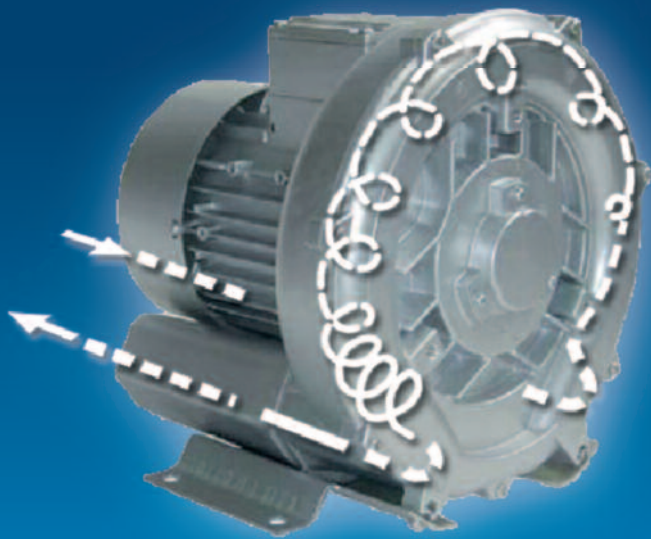


Blowers

Side channel
compressors and
vacuum pumps





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

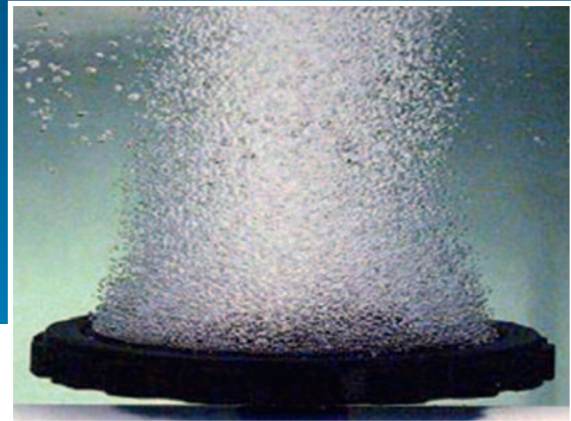


Flexible hoses

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.

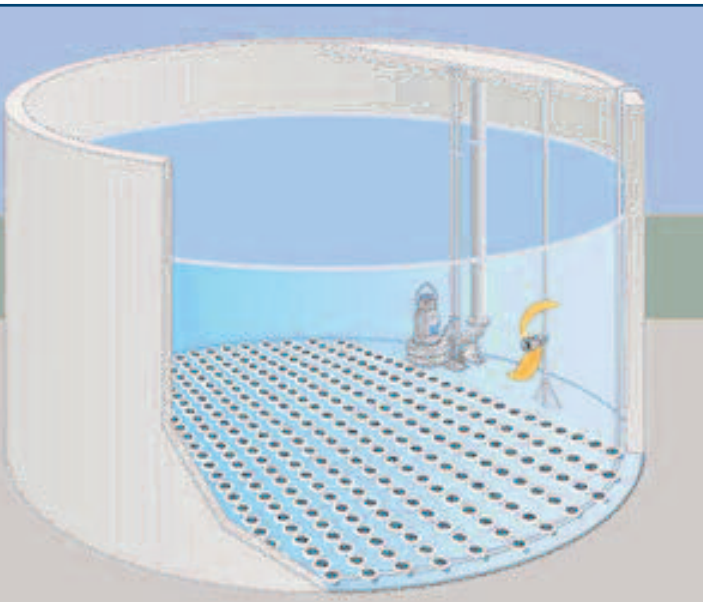
Aeration systems which are key component of the activated sludge process serve two purposes; satisfy oxygen demand and provide sufficient mixing turbulence to keep solids in suspension.

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

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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

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