

## Blowers

### Side Channel Blowers and Exhausters

The side channel blower or exhauster increases the pressure of the aspirated gas by a series of vortexes in the 'peripheral toroidal channel' - created by the centrifugal thrust of the impeller. Whilst the impeller is rotating, the vanes force the gas forward and 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.

#### Applications and advantages

Side channel blowers are suitable for applications requiring considerably higher pressures than that which can be achieved using centrifugal fans.

The rotating parts are not in contact with the casing. There is therefore no friction loss during operation and thus no internal lubrication is required. Air passing through the machine therefore remains uncontaminated and completely oil-free.



Other advantages of using side channel machines are:

- Easy installation
- Low noise level
- No vibration and therefore complete dynamic stability
- Pulsation free discharge
- Minimal maintenance.

### Blowpak Enclosures

Lined with dense acoustic insulation, the Blowpak® is an effective option for reducing blower noise emissions.

Blowpak® enclosures can be custom manufactured to suit your requirements - including powder coat finish, galvanised, 304 and 316 stainless steel. Other options available include:

forced air ventilation, a lockable catch and electronic sensors for monitoring system operation.



### Side Channel Blowers for Combustible Gases

Blowers for biogas, natural gas or combustible gases, in conformity with the 94/9/EC Directive (ATEX) Zones 1 and 2.

#### Features of construction

A specific range of TRENT® blowers have been developed to extract or compress combustible gases, such as biological gas or methane gas. The main characteristics of construction of these machines are:

- Casing and impellers manufactured with completely spark proof aluminium alloy
- Static parts in contact with the gas are impregnated with Loctite
- Casing halves sealed
- Shaft sealing - using special lip seals which do not require lubrication
- Explosion-proof electric motors, with minimum protection class Ex-d IIB T3 – IP55 for Zone 1; non-sparking motors, with maximum protection class Ex-nA II T3 – IP65 for Zone 2.

Motors that conform to NEMA, SABS and other Standards can be supplied upon request. For motors up to 4 kW, the blowers are manufactured with a "CLOSE COUPLED" version.

Larger blowers employ flexible or belt drives and in these cases, the safety drive guards are made from spark-free material.

### The most common fields of application

- Landfill biogas recovery to feed torch, burner or gas engine;

- Tank, plant or contaminated soil gas recovery to feed torch or burner;
- Extraction of biogas from gasometer, natural gas from pipeline or gasometer and burner or gas engine feeding

## Aggressor Blowers

### AGRS series

The AGRS series blowers feature high quality and large capacity blowers for the heavy industrial and municipal industry. The AGRS series are available in high efficiency roots type blowers or turbo fans. They are fitting with quality acoustic enclosures, made from galvanised or stainless steel sheet, suitable for indoor and outdoor applications.

- Flow rates: 20 – 20,000 m<sup>3</sup>/hr
- Discharge pressure: 0 – 100 kPa
- Motor sizes: 0.25 – 500 kW
- Outlet: DN50 – 500



### RB series – submersible blower

The RB submersible Helical Rotor Blower is a direct drive, Roots-type blower designed for installation within the process tank. The RB Blower has unique advantages including: extended life and reduced maintenance due its cool water environment, near silent operation and substantial space saving.



### ARS / ARH series

The ARS & ARH-S Rotary Lobe positive displacement blowers are built to high quality standards and are renowned for their reliability and efficiency. The high efficiency ARS series blower features an air cooling system to reduce gear and bearing oil temperatures and a patented progressive discharge design which reduces output noise.



## Product Fact Sheet



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