



ENTECC TURBO BLOWER

Since 2020 Entec has a partnership with a leading manufacturer of Turbo Blowers. The highly efficient Turbo Blowers are stationed in one compact blower-package and are equipped with the newest generation air bearing, high precision aerodynamic impeller, most efficient and durable PMSM and customised VFD.

SPECIFICATIONS

SAVING ON ENERGY

Aeration typically is responsible for 50-70% of the total power consumption in a WWTP and since the price for energy has been rising by the year (and is expected to keep rising), there are some great opportunities for efficient aeration designs.

Replacing old blowers with our efficient turbo blowers will guarantee an immediate drop in energy costs. To further the lowering of energy consumption, Entec can optimize the complete aeration system in order to lower the air demand.

- Low capital investment and low power consumption.
- We do not just say it, we show it. Transparency is key.

LOW NOISE AND LONG LIFESPAN

- No extra silencer system needed for the 75-80 dB production.
- Direct connection of shaft-impeller for no loss of efficiency in entire lifespan.
- Extended life of parts due to no contact parts in motor assembly.
- No need for extra vibration proof devices, since there is no vibration.

EASE OF OPERATION

- Automatic control of motor speed, discharge pressure, inlet airflow and temperature.
- Various operation modes- Power/Speed control modes, constant flow/pressure modes.
- Automatic operation with surge & overheat protection set up.

EASE OF MAINTENANCE

- Air foil bearing, no lubrication required.
- No need for periodic replacements of bearings and lubricants.
- Maintenance exists only for the replacement- and cleaning of inlet filters.
- Entec supplies an overview for the maintenance with each blower.

TURBO AIR FOIL BEARING

- Adopts 100% oil-free non-contact system.
- Simple system that needs no maintenance.
- High efficiency that minimizes the power losses.
- No vibration and less noise.
- Semi-permanent lifespan (maximum start-stop tests have found no limit yet).



TURBO MOTOR/ IMPELLER

The high speed PMSM (Permanent Magnet Synchronous Motor) is the most efficient of its kind. The RPM is controlled via the inverter frequency.

- Direct connection of the shaft to the impeller.
- Lowest power loss and noise (less than 75 dB).
- High speed rotation with a maximum of 60.000 rpm.
- Lowest mechanical friction due to air foil bearing.
- Built-in air cooling system.
- Start-stop cycle test conducted over 20,000 times.
- Max. efficiency of 97-98% !