



# HAUS Turbo Blower / Air Blower for Process Aeration

TURBO Blower is a variable speed, single-stage, high-speed, oil-free, air centrifugal compressor. It has been designed by HAUS to provide the process air in industrial and municipal applications, like:

- Aeration of biological waste water treatment tank with activated sludge
- Aeration of yeast production or fermentation tank
- In general, any other applications that require aeration.

### SPECIAL FEATURES

TURBO Blower reaches a peak Package Efficiency >75% (Peak stage polytrophic efficiency 84%), and it is able to operates within a wide operating range, being flexible and energy efficient.

Thanks to advanced design features, between which:

- CNC milled high strength Aluminum Impeller: state of the art 3D impeller with an exceptional performance
- Cast and machined Spiral Volute Casing: Optimized geometry for compressor stability and high load capacity
- High-Speed Electric Motor with Magnetic Bearings and VFD: Contact-less and wear-less
- PLC to set different compressor operation functioning, by selecting different control modes:
  - Speed Control
  - Volume Flow
  - Control Pressure Control
  - Dissolved Oxygen Control
  - Surge Control
  - Sequencing and Energy Efficiency Optimization

### **DESIGN**

TURBO Blower is made of many components which are assembled within a common cabinet, and everything is contained within a sound proof enclosure.

The design and the manufacturing are according the main technical norms.







# Let US solve!

- 1 Automatic Highspeed Anti-surge Valve
- 2 Impeller Directly Connected to the Motor without Shaft Sealing
- 3 Single-stage Turbo Compressor Driven by an Air&Water-Cooled Synchronous
- 4 Air Intake Slicer, From Side
- 5 Air Intake Filter
- 6 Magnetic Bearing System



### Main Components

- Compressor Stage
- Variable Speed Drive
- Cooling Water System
- Bypass Valve
- Control System Including All Required Sensors
- Cabinet
- Intake Air Filter
- Intake Silencer
- · Discharge Cone / Silencer

## Applicable Standards and Directives

- EN61800-3(EMC)
- Low Voltage Directive (LVD), 2006 2006/95/EC
- Electromagnetic Compatibility[EMCD]
- Machinery Directive (MD), 98/37/EC

	Turbo ELP 066	Turbo ELP 064	Turbo ELP 062	Turbo EMP 126	Turbo EMP 124	Turbo EMP 122	Turbo EHP 126	Turbo EHP 124	Turbo EHP 122
Max Flow Rate Capacity [m <sup>3</sup> /h]	17300	14000	10500	15000	14000	10500	9000	6200	4000
Min Flow Rate [m³/h]	5000	4000	2800	5000	4200	2800	3000	2100	2000
Max Shaft Power (kW)	350	250	170	350	250	170	350	250	170
Max Machine Power	400	300	200	400	300	200	400	300	200
Min Ambient Temprature [OC]	-20	-20	-20	-20	-20	-20	-20	-20	-20
Max Ambient Temprature [OC]	50	50	50	50	50	50	50	50	50
Sound Emission [dB(A)]	<80	<80	<80	<80	<80	<80	<80	<80	<80
Max Pressure [bar]	0.8	0.8	0.8	1	1	1	2	2	2

<sup>\*</sup>HAUS reserves the right to modify the specifications herein without prior notice.



