

AERZEN extends its portfolio of turbo machines. The new duo: best energy efficiency with smallest footprint.

The Aerzen Turbo G5^{plus} series is one of the most compact and efficient turbo machines in its class. With two new sizes, AERZEN offers numerous innovations. In addition to an increased system pressure, the new turbos can also score with an extended control range and an efficiency increase of up to 10%.

The powerful turbo blowers of the Aerzen Turbo series are particularly suitable for use in municipal or industrial wastewater treatment plants and cover with now 21 models a volume flow range from 300 m³/h to 16,200 m³/h and system pressures up to 1,000 mbar.

The two new turbo sizes, Aerzen Turbo AT 35 and AT 60, are designed for medium volume flows of 700 - 2,700 m³/h and package capacities of up to 20 kW resp. 50 kW. Thanks to a completely newly developed motor design, the maximum differential pressure has also been optimised up to 900 mbar. The development team was able to turn the efficiency screw once again and achieve significant increases in performance. The energy improvement of up to 10% is based on an aerodynamic redesign of the turbo impeller and the spiral housing. Sophisticated CFD analyses were the cornerstone for achieving this new level of efficiency.

For a turbo machine of this size, the new turbos also have a very high control range from 35 to 100% and a constantly high overall efficiency over the entire control range thanks to the AERZEN permanent magnet motor. This motor already meets the future requirements of the IE5 classification. The dimensions of the revised packages are also quite attractive. The footprint of less than 1m² allows transport through even the smallest door dimensions. The footprint of one package saves approx. 60 % of the required space. Like all other models, the new duo features the innovative AERZEN air foil bearing with double coating for extended bearing life as well as the new multilevel frequency inverter technology for extended areas of application.

In addition, the AERZEN turbo packages of the G5^{plus} series have been subjected to further acoustic optimisation. Not only has the machine noise been reduced to an exceptionally quiet level of 72 dB(A), but the discharge and piping noise has also been reduced by a significant 10 dB(A), so that in future there will be no need for silencers on the system side.

All advantages at a glance

- Increase in energy efficiency by up to 10%, highest possible efficiency up to 45 m³/min
- Footprint < 1m² (AT 35/60)
- Extended control range between 35 and 100% with constantly high overall efficiency
- Extended bearing life thanks to innovative AERZEN air foil bearing with double coating, up to 80,000 operating hours independent of start-stop cycles, highest reliability even under extreme operating conditions and pressure fluctuations
- Low-noise operation of 72-73 db(A)
- Lowest maintenance, only regular filter change
- Extended application possibilities at ambient temperatures of up to 50°C
- Active pump protection through automatic speed increase
- Convenient turbo control
- 100 percent oil-free operation
- Plug & Play solution thanks to integrated control and power cabinet

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The company

Industrial plants all over the world are provided with gaseous media using AERZEN blowers and compressors. The innovative AERZEN machine technology represents experience gained over more than 150 years of company history. The range of products includes screw blowers, positive displacement blowers, turbo blowers and screw compressors. The AERZEN product portfolio is flexible and offers besides standard products customised special solutions. Digital services can be used to increase efficiency, availability and productivity in a sustainable and future-oriented manner. In addition, AERZEN After Sales Service offers the whole range of services - from full maintenance contracts to repairs and modernisations of existing plants.

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