**Axial fans in size category 1,250 mm have been an established part of ebm-papst's product range for several years. Now axial fans of this size can also be combined with the AxiTop diffuser, which not only enables an increase in energy efficiency, but also a decrease in noise emission.**

**Axial fans for high output**

The blades of the axial fans are mounted on the rotor at an optimum inclination angle. Thanks to their powerful 6 kW electronics, they achieve an air flow of up to 65,000 m³/h. The fans operate in ranges up to 280 Pa. Operation is possible up to an ambient temperature of 75 °C, which is especially necessary for use in compressor stations.

**Diffuser increases efficiency and minimizes noise**

Without AxiTop, an overall efficiency of approx. 42 % is achieved. If the axial fan is combined with the diffuser, the overall efficiency can be increased to over 50 % thanks to an improvement in the aerodynamics. This effect of increasing pressure simultaneously minimizes outlet losses and reduces energy consumption by 25 %.

**Energy savings pay off**

EC fans are made all the more impressive by their considerably higher efficiency levels. It is possible to control them in line with demand, in contrast to otherwise conventional designs with asynchronous motors. This further increases energy savings and quickly pays off for the user. If many fans are in use, the 0-10 V interface and the convenience of networking using the MODBUS are available for actuation. Considering an operating point of around 48,000 m³/h at 140 Pa and an operating time of 6,000 hours per year, and when using an axial fan in size category 1,250 mm with the AxiTop, this results in an energy saving of over €1,000 per year (at a price per kWh of €0.15).

**Simple installation**

These fans are used in electricity generation systems, gas plants and compression stations, as well as in large refrigerating plants and condensers, to name a few examples. The AxiTop can also be retrofitted to existing fans. Installation is simple: The user can implement an easy-to-install plug & play solution.

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Fig. 1: The AxiTop now also shows off its effective pressure-increasing capability in large axial fans in size category 1,250 mm.

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**About ebm-papst**  
The ebm-papst Group is the world's leading manufacturer of fans and motors. Since it was founded, the technology company has continuously set global market standards. Developments have ranged from electronically controlled EC fans, through aerodynamic improvements of fan blades, and on to the resource-conserving selection of materials, with sustainable materials being just one option.

In fiscal year 2015/16, the company achieved sales of almost €1.7 billion. ebm-papst employs approximately 12,500 people at 18 production sites (in Germany, China, the United States and elsewhere) and in 57 sales offices worldwide. Fans and motors from the global market leader can be found in many industries, including ventilation, air conditioning and refrigeration, household appliances, heating, automobiles and drive engineering.