**Efficient operation in any assumed load condition is the aim of any fan selection. To find the optimum fan for a particular application, ebm-papst offers its FanScout selection software.**

**Highest accuracy rating confirmed by TÜV SÜD certification body**

The minimum input data for selecting suitable fans are the operating points and times. In addition, information about the available installation space, redundancy requirements or the maximum permitted number of fans contributes to making the best selection. Based on these specifications, ebm-papst FanScout checks all possible size and number variations for their expected annual energy consumption. This makes it easy to determine the operating costs, to which the capital and service costs are then added in order to obtain the lifecycle costs over a defined period. This cost analysis makes it easier to make decisions when investing in energy-efficient fan technology, as it allows precise calculation of amortization times. This is because the selection software is based on actual measured data. The variation between calculated operating data and actual measured data is so small that the TÜV SÜD certification body has given the software its highest accuracy rating.

**Operating costs under actual operating conditions**

Fans are selected not only based on the maximum operating point, as is so often the case, but individually based on a defined operating cycle that is predicted to occur over the year. For example, the requirements for the fans change depending on whether recirculation or mixed air mode is used. For this reason, in ebm-papst FanScout up to five different operating conditions can be entered, including the operating hours the fans spend running under those operating conditions. On this basis, the software calculates the total energy consumption for every fan combination.

**Use of parallel operated fans in ventilation technology**

To achieve high air performance in modern ventilation technology, several smaller fans often operate in what are known as FanGrids. The selection software can also be used to determine the most economical fan combination for FanGrids. Parallel operation of multiple small fans has huge advantages over large individual fans. The more uniform flow through the heat exchangers or filters leads to better heat transfer performance and more efficient filtering of the air. In addition, several small fans require much less space, which reduces the costs of the system. A FanGrid has a redundant design, i.e. if one fan fails, the speed of the others is automatically increased to provide the best possible compensation for the loss of air performance. The ebm-papst FanScout software can also reliably simulate this operating condition, contributing to an optimum configuration of the ventilation system.

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Fig. 1: The FanScout selection program from ebm-papst enables the most economical fan combination to be identified.

Photo ebm-papst

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Link: [www.ebmpapst.com/fanscout](http://www.ebmpapst.com/fanscout)

**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.