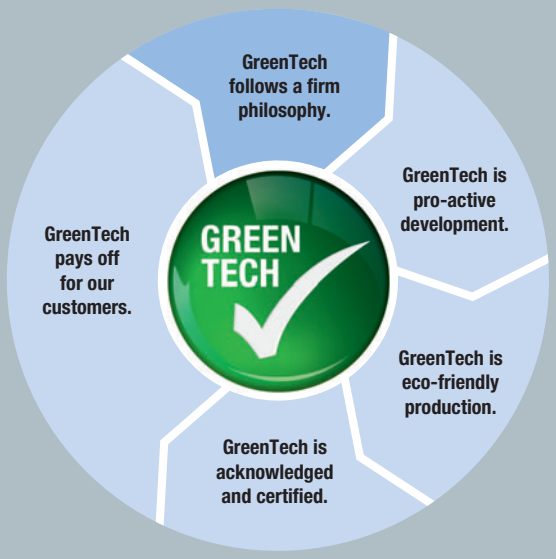
The Green Company.

The engineer's choice

ebmpapst

A symbol that defines standards.



Green through and through
In order to underline our philosophy, efforts and achievements when it comes to environmental protection, we have put them all in a nutshell with GreenTech. The benefits of GreenTech mesh with one another from the initial development of our products through to their use – and they form a circuit that finishes right where it began: with the philosophy that we shall soon build another, even more eco-friendly and economical product.

Philosophy:
Each new development must exceed the economic and ecological performance of its predecessor.

Development:
Materials, products and processes are selected and designed in an environmentally responsible manner using state-of-the-art methods.

Production:
State-of-the-art energy, air-conditioning and ventilation technology provides maximum energy efficiency in our plant.

Awards:
Environmental prizes, distinctions and energy efficiency that beats even the most stringent limits speak for themselves.

Application:
Our high-efficiency products boost enormous energy savings with top performance.

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Dear reader,

It is UNESCO that decides when a region is to be declared a World Heritage Site. The idea goes back as far as the 18th century and to Henri-Baptiste Grégoire, Bishop of Blois (France).

The awareness that we need to conserve our environment is nothing new. But it has been intensified by "Conferences on Climate Change", by declining oil reserves, by rising energy prices and by global CO_2 discussions. The issue is no longer about giving special protection to isolated geographical areas, it is about protecting our own living space!

What can be better than saving energy? Energy efficiency and sustainability – that is why we regard the success of our company and the protection of the environment not as a compromise, and certainly not as contradictions, but as one inseparable entity.

And that is neither a vision nor a goal – with GreenTech it has long become a true-life reality. From development to delivery – for their entire service life, our products with the GreenTech label represent groundbreaking energy efficiency that our customers can convert directly into money saved.

We would like to tell you more about them. The narrow thread on the left-hand side will take you through this brochure.

Hans-Jochen Beilke
Chairman of Board of Directors

GreenTech follows a firm philosophy.

The GreenTech idea reflects a simple but clear philosophy that goes back to our company principle: “Each new product that we develop has to be better than its predecessor in terms of economy and ecology.”

And that is not always an easy task when you have more than 14,500 different products in your range. And yet our colleagues all round the world have been thinking and acting in accordance with this principle for decades – even before the word “ecology” became a catchword crossing the boundaries between generations. Year after year, they input a great deal of know-how, commitment and great inventiveness to redefine standards with ever more powerful and efficient motors and fans that raise the bar ever higher, step by step, often even in giant leaps.

When we say “each new product”, that also means a large proportion of customer-specific developments. Each product that is designed for just one single application.

GreenTech is pro-active development.

Green means: thinking of the environment during development.

Tech means: **writing history** with hybrid materials.

Sustainability is something quite normal for us when we develop new products and technologies. Even during the concept phase we optimise our materials and processes to achieve maximum environmental compatibility, energy balance and recyclability. While we are permanently working on improving motor technology, electronics and fluid mechanics, at the same time we are working on reducing energy consumption.

Our S-Force high-performance fans, for example, which overshadow all our competitors in terms of power, air performance and efficiency, would not have been possible without the perfect interaction of motor technology, fluid mechanics and intelligent electronics. Our high-efficiency HyBlade® fans are also based on a breakthrough in research. We needed a new hybrid construction to achieve the stability of high-strength aluminium with the lightness and malleability of plastics.

We support the promotion of young talent by sponsoring two professorships. One of these deals exclusively with the theory of energy management.

GreenTech is environmentally responsible production.

Green means: making clever use of energy resources.

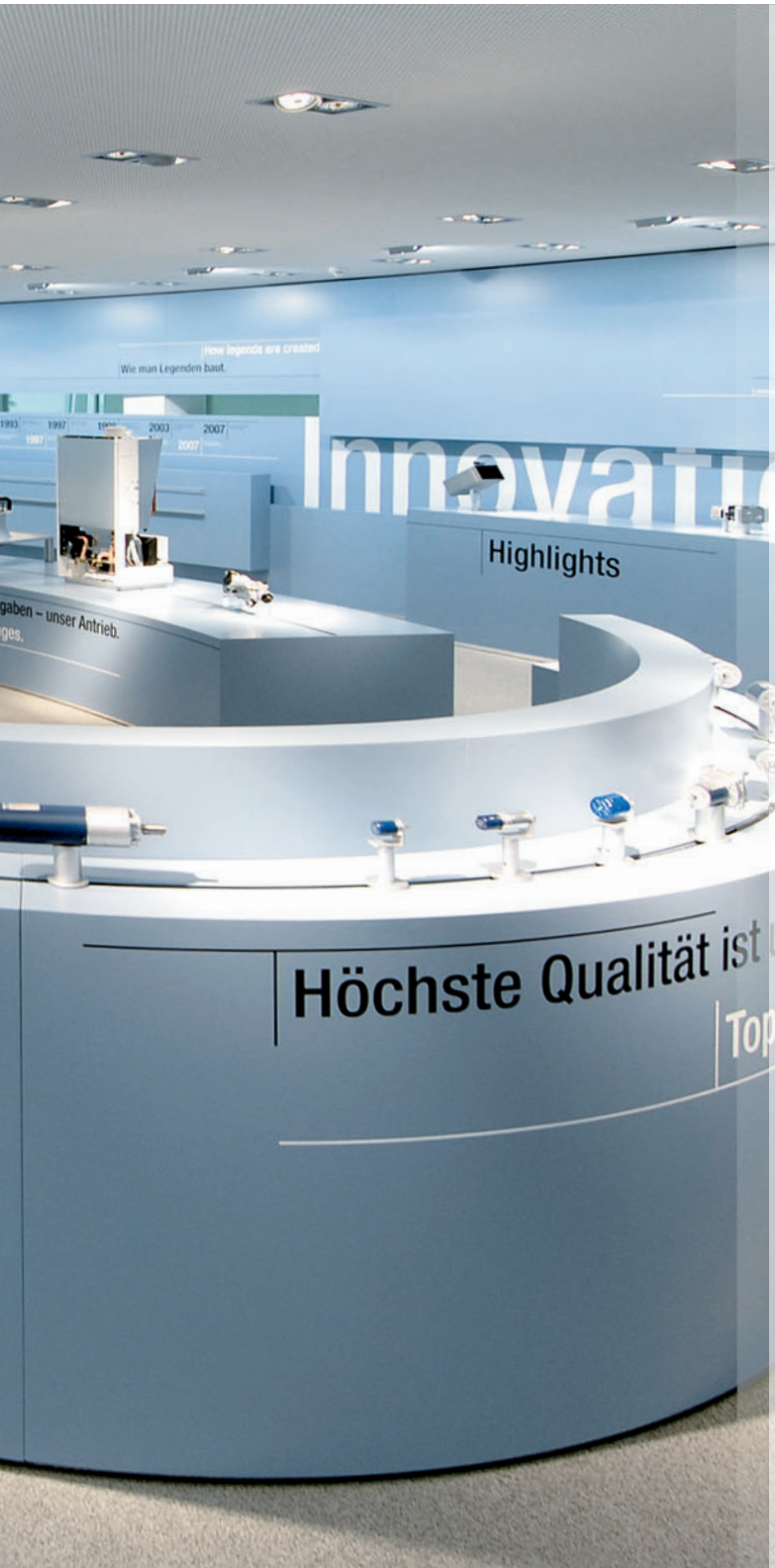
Tech means: apart from fans, producing our own renewable energy.

GreenTech also stands for intelligent economy with maximum energy efficiency in the production process. That starts with the fact that ever since the 1960s we have run a shuttle-bus service to bring our employees to work from more distant areas of the district of Hohenlohe. That is not only convenient. It also saves countless litres of fuel every day. On the other hand, for the purchase of company cars neither engine power nor pure economy is what plays the decisive role, but minimum CO_2 emissions. And this applies to the entire ebm-papst Group. However, our production sites themselves are even more important. Here we employ intelligent solutions in energy management and state-of-the-art technologies to define the standards in building systems.

One impressive example is the Hollenbach factory, which was completed in 2007, and which was designed for maximum energy efficiency from the very first planning stage. The most important features of the high-tech location include its own power generation using a photovoltaic system and a cleverly devised system for ventilating, cooling and exploiting the residual heat generated on the 13,000 square metre building.

A new factory of this size would usually need about 850,000 kWh per year for heating and cooling. Our factory needs less than one tenth of that amount.

GreenTech is recognised and award-winning.



Whenever our commitment to sustainable, eco-friendly products is publicly appreciated, that shows us that we are on the right track. Ultimately, the efficiency of GreenTech is measurable. For example by satisfying the strictest limits for energy-powered products that the EU has passed to date. These planned limits are not scheduled to come into force until 2015, but our EC fans already undercut them by far.

Moreover, we are pleased that our entire production chain regularly stands up to the scrutiny of environmental specialists. Awards such as

- the Environmental Prize and Environmental Technology Prize of the state of Baden-Württemberg
- the Energy Efficiency Award of dena, the German Energy Agency
- the Cooling Industry Award
- the iF material award or
- the Elektra Innovation Prize

clearly show that we can live up to our high standards.

With Mulfingen and Landshut, two of our German locations were honoured in the nationwide competition "365 Places in the Land of Ideas".

GreenTech pays off for our customers.

Profitable through and through

Environmentally friendly, technologically highly developed products always represent an investment for the user. This is just as true for our products as it is for any others. But not all users are convinced that they are doing the right thing economically by investing ecologically.

On the basis of different industries, we have calculated five typical examples that underline just how beneficial it can be to invest in our highly efficient products. Of course, specific factors such as range of applications, energy costs and working time have to be taken into account for each individual case if the exact savings potential compared to similar standard models is to be calculated. The ebm-papst energy-savings calculator at **www.greentech.info/calculator** makes this job really easy for you. But the figures below give a good impression of how systematic energy efficiency can be turned into hard cash.

Green means: investing in efficient products.

Tech means: **saving costs** for the entire lifespan of a product.

The heart of GreenTech beats in ebm-papst's extremely energy-efficient EC technology. And this is where the first direct benefit to the customer can be found. If less energy is consumed, costs for electricity will be lower. But that is just the start, for EC technology also means that the motors and fans can be controlled, regulated, and are thus able to respond flexibly to the performance requirements actually encountered. And that makes a big difference, for nothing is more economical than a unit that switches itself off when it is no longer needed.

Another bonus of the electronics is brushless commutation. This allows our EC motors and fans to operate completely wear-free, so they are much quieter, suffer no drop in performance and have a much longer service life. So, while our customers reduce their electricity bills day by day, at the same time they also benefit from extended maintenance intervals, which means even greater cost savings for parts and labour.

European industry could save 26,000,000 MWh of electrical power every year by using EC fans. At current prices, that equates to more than 3.6 billion euro.

29% Savings

6 fans work in one heat exchanger. At an average duty cycle of 75 % this means an annual savings potential of over 24 MWh. This corresponds to approx. 14.4 tonnes of CO_2 and saves 2,814 euro*.

e. g. A3G800 axial fan

67% Savings

A small supermarket operates 40 fans in the refrigeration counters. The lower intrinsic heating of the energy-saving motor allows a 30 % shorter working time. Over a year, that means a savings potential of more than 9.4 MWh and 5.6 tonnes of CO_2. Cost saving: 1,080 euro*.

e. g. W1G200 axial fan

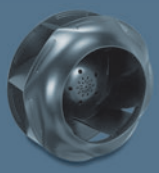
79% Savings

In a medium-sized factory are 50 control boxes with air filters running in continuous operation. Exchanging the conventional AC fans could save 6.5 MWh of energy over a year. The fans will have paid back the extra cost after just 4–6 months.

e. g. ACi 4400 axial compact fan

22% Savings

6 precision air conditioning units are working in the IT rooms of a computer centre, each equipped with 3 EC fans. With a duty cycle of 100 %, up to 50 MWh of electricity can be saved. That corresponds to about 30 tonnes of CO_2 and 5,898 euro* every year.



e. g. R3G500 radial fan

30% Savings

8 centralised air conditioning units are operating in a shopping centre. With a duty cycle of 100 % and ventilator operation according to actual requirements, the annual savings potential is 291 MWh and 34,081 euro. CO_2 emissions are reduced by about 175 tonnes.

e. g. K3G560 fan

*11.69 cent/kWh, average electricity price for industry in Germany (as of January 2010, source: VEA, BDEW)

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ebm-papst
Mulfingen GmbH & Co. KG

Bachmühle 2
D-74673 Mulfingen
Phone +49 7938 81-0
Fax +49 7938 81-110
info1@de.ebmpapst.com

ebm-papst
St. Georgen GmbH & Co. KG

Hermann-Papst-Straße 1
D-78112 St. Georgen
Phone +49 7724 81-0
Fax +49 7724 81-1309
info2@de.ebmpapst.com

ebm-papst
Landshut GmbH

Hofmark-Aich-Straße 25
D-84030 Landshut
Phone +49 871 707-0
Fax +49 871 707-465
info3@de.ebmpapst.com

www.ebmpapst.com

ebmpapst