

Elektor
airsystems gmbh



AIR TECHNOLOGY SOLUTIONS FOR DEMANDING APPLICATIONS

Product overview

SET BENCHMARKS NOW.

Efficient and high-performance solutions
from one source.



For the past 95 years Elektor airsystems stands for high-performance products and system solutions when it comes to making air used efficiently as an operating medium in industrial processes. Our slogan is "We make air work" – and that's what defines our actions. We are always considering holistically and combine extraordinary product quality with competent support for integration and individual configuration. Efficient production is the key to success.

At our highly-modern production centres we manufacture products according to strict quality standards, thereby creating the foundation for top-quality ventilation solutions. We also produce our motors at our own motor construction site. We are based in Germany and know what "MADE IN GERMANY" means – we act in the same way worldwide. We offer both one-piece-flow and series production.





Our aspiration for the Elektor brand is clearly defined: we aim to be the best!
Whether in the headquarters in Ostfildern or in the production centres Waghäusel and Chorzów (PL), we strive for perfection every day.

Elektor aircsystems is managed by trustees and combines the benefits of a medium-sized company with the performance of a Global Player in a particularly special way.
With a worldwide sales and service network, we are always around the corner from our customers.



THE FUTURE STARTS NOW.

Technology development and simulation
Systems and solutions

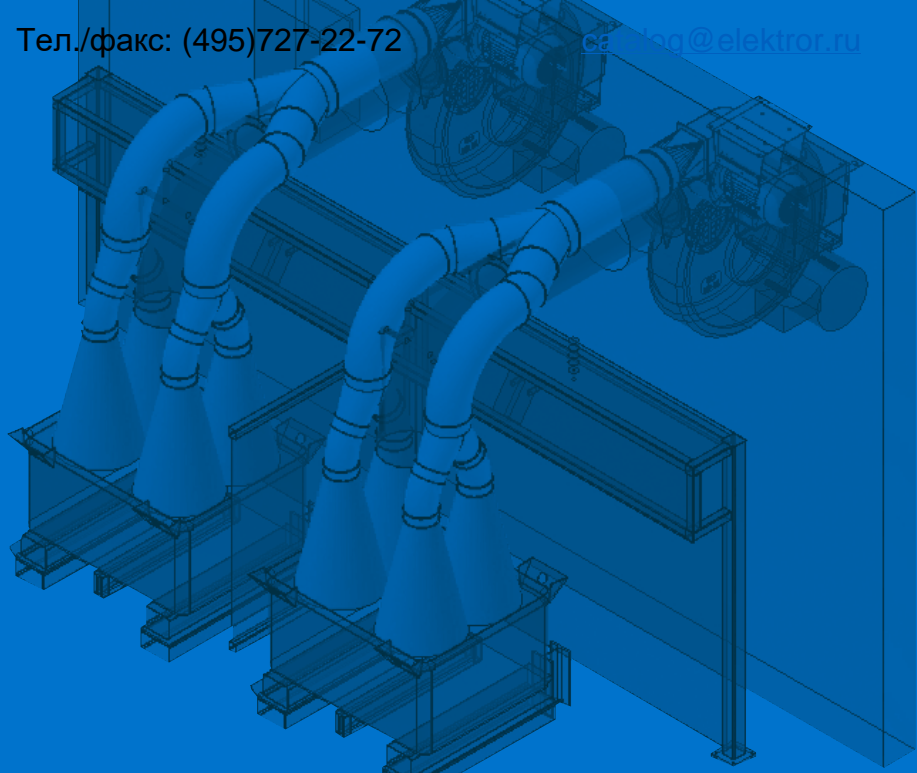


Our service goes well beyond perfect process handling. With our own ventilation lab as well as a research and preliminary development department, we are able to simulate and investigate system components so as to provide customers with that crucial additional expertise. This is why our research is always geared closely towards applications so as to tackle practical issues.

We mainly focus on efficiency, acoustics and durability. In so doing we look at the correct design

and flow optimisation, noise reduction, sound insulation, impeller stability and bearing durability. We have modern simulation tools available to us to tackle challenging projects, and we use these to make flow and strength calculations as the basis for ensuring that a ventilator meets our customers' needs precisely.



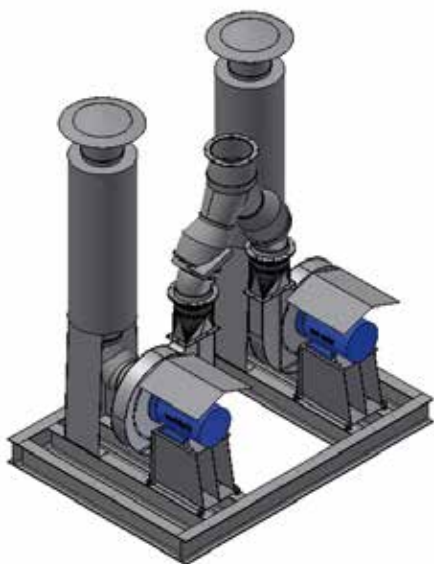


Since individuality is what makes us who we are, the question of serial or bespoke product never arises. We offer both.

In addition to single devices, we design and build individual and comprehensive installation-ready solutions that are precisely matched to the customer's systems as required. This is based on our decades of experience and close cooperation with customers in all sectors and applications.

We take care of the entire design and engineering through to installation-ready delivery of the complete systems and modules.

Whether an installation-ready drying module or an air cabinet equipped with diverse features and functional units: the variety and the challenges this involves are as wide-ranging as the machinery and plant engineering itself.



THE NEW ONES

Aluminum high pressure blowers

Possible versions:

- Media temperatures up to 180 °C
- Increased protection class
- Sealed
- Multiple certificates (UR (USA / Canada))
- Other special versions available on request
- Elastic and partially elastic connection

Application examples:

- Air cushion tables
- Cooling
- Ventilation
- Drying

A-HP



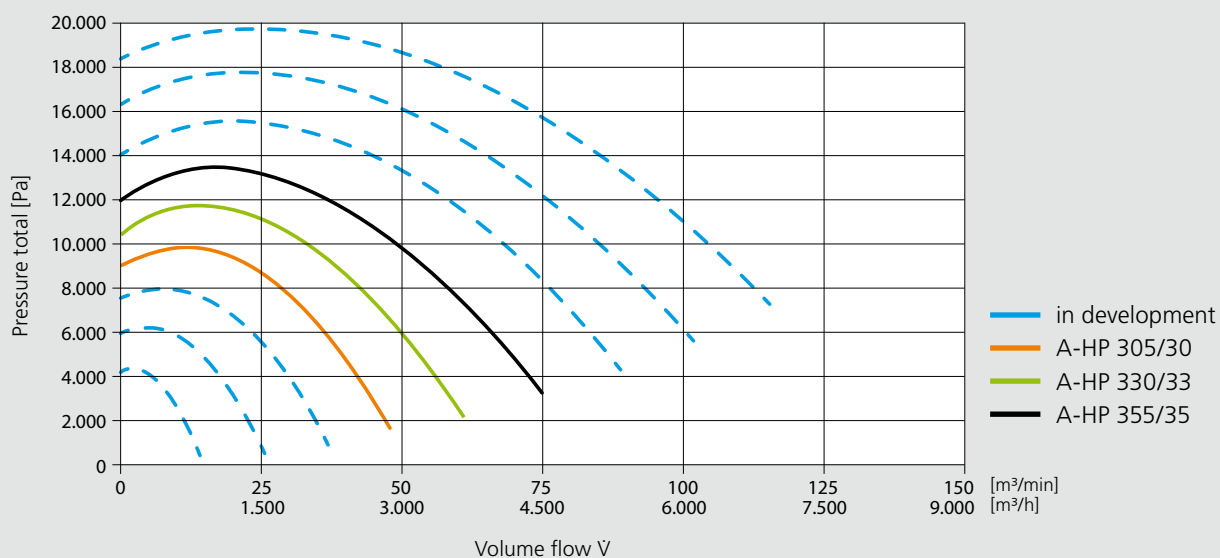
A-HP FUK



Entirely new and recently developed – the aluminium high-pressure series by Elektor. The team of developers set out to create an even higher-performance series offering impressive efficiency and a compact design. Cutting-edge development methods and decades of practical experience went into the development process.

The impeller and housing were optimised and perfectly harmonised based on flow simulations and load tests. The series has a direct drive and is operated by means of a frequency inverter. It will comprise nine devices in future.

Characteristic curve diagram



THE ALL-ROUNDER

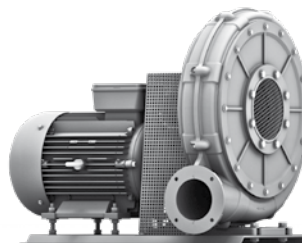
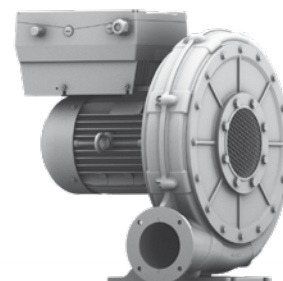
Radial blowers with
aluminium housing

**Possible versions:**

- ATEX (gas: zones 1, 2 / dust: zone 22)
- Media temperatures up to 230 °C
- Increased protection class
- Sealed
- Suitable for frequency converters
- External drive
- Multiple certificates (EAC, UR (USA / Canada))
- Other special versions available on request

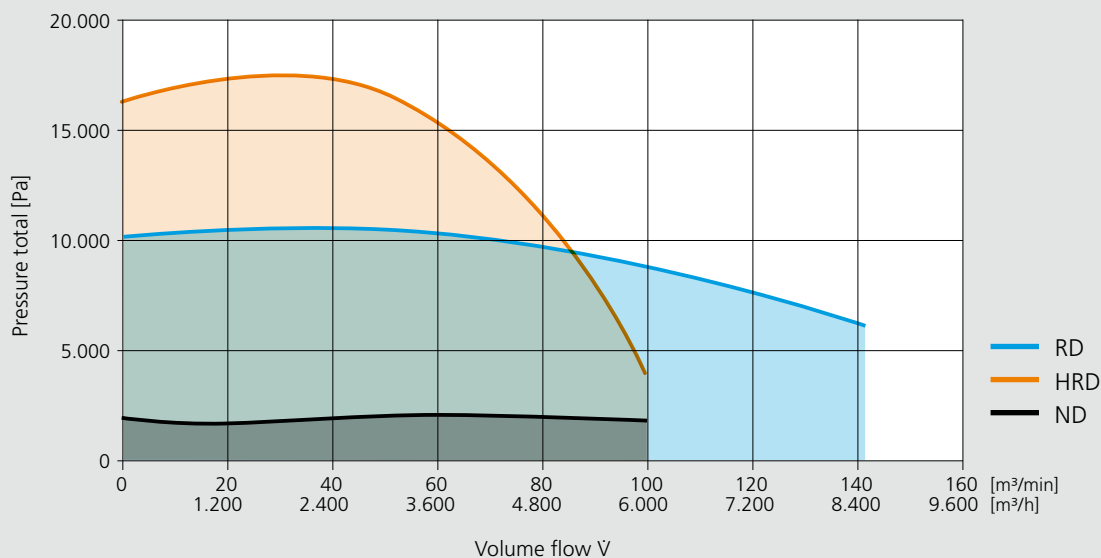
Application examples:

- Air cushion tables
- Cooling
- Ventilation
- Drying

ND**RD****HRD****HRD FUK**

These product groups that have been proven and tested for decades are characterised by a robust and durable housing made from aluminium.

Thanks to the wide performance range, it offers a very wide scope of applications. There is a wide range of accessories available in order to equip the blowers according to individual requirements.

Characteristic curve diagram

THE RESISTANT

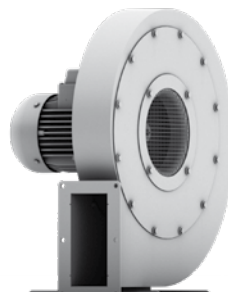
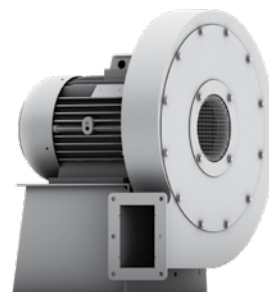
Radial blowers with
stainless steel housing

Possible versions:

- ATEX (gas: zones 1, 2 / dust: zone 22)
- Media temperatures also beyond 300 °C
- Increased protection class
- Suitable for frequency converters
- Condensed water borehole
- Multiple certificates (EAC, UR (USA / Canada))
- Other special versions available on request

Application examples:

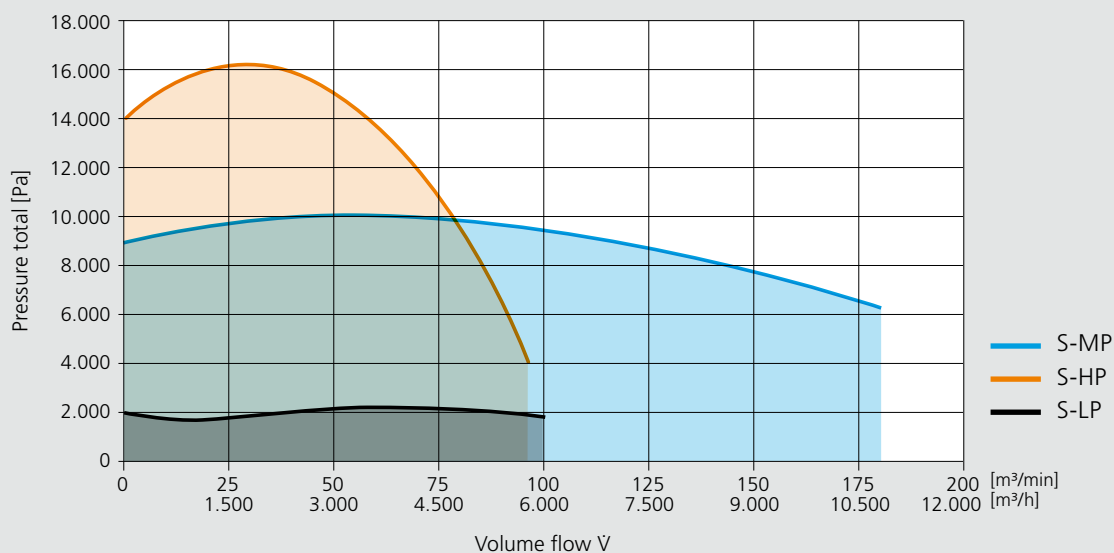
- Food industry
- Pharmaceutical industry
- Process engineering
- Traffic engineering

S-LP**S-MP****S-HP**

As the name suggests, the installation and operation conditions represent high demands, this product range sets an example.

The laser welded stainless steel housing made from 1.4301 are particularly resistant against many different chemicals and other aggressive substances.

It can also be applied in such areas where corrosion protection is required and there are even technical solutions for high media temperatures.

Characteristic curve diagram

THE LARGE-VOLUME

Centrifugal fans with
stainless steel housing

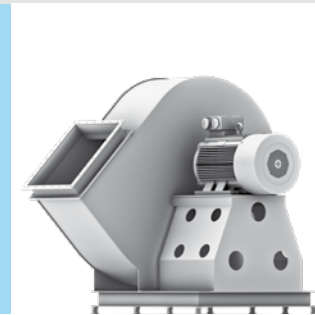
Possible versions:

- ATEX (gas: zones 1, 2 / dust: zones 21, 22)
- Media temperatures up to 750 °C
- Increased protection class
- Application-orientated materials
- Suitable for frequency converters
- Noise insulation
- Inspection openings
- Condensed water borehole
- Multiple certificates (EAC, UR (USA / Canada))
- Other special versions available on request

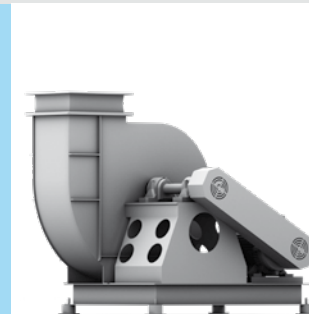
Application examples:

- Exhaust air cleaning
- Painting plants
- Drying engineering
- Process engineering
- Ventilation

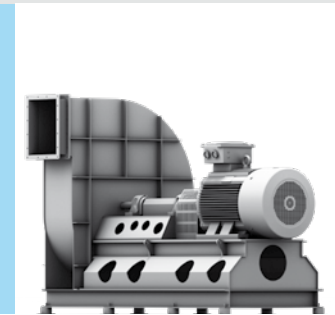
Direct drive



Belt drive



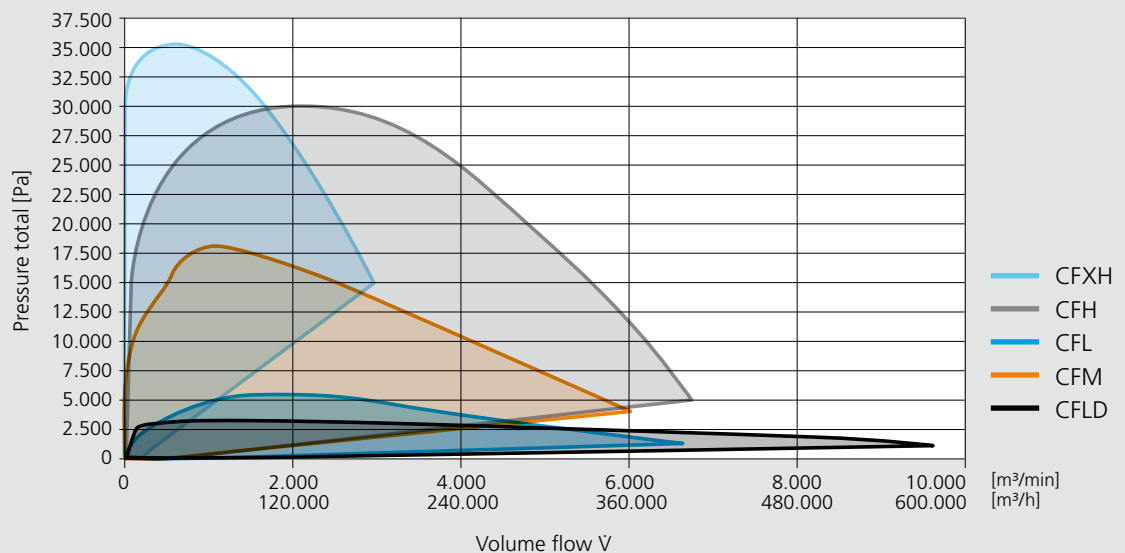
Coupling drive



Wide performance spectrum in combination with economical operation. The welded and exceptionally robust fans of series CFL to CFXH are typical industry products and are available in different materials. They have a very high efficiency and are dimensioned precisely to the operating points selected by the customers.

We should emphasise the particularly user specific various designs, such as e.g., direct, coupling or belt drives that are available for all series. Moreover, thermal or acoustic insulation measures are optionally available.

Characteristic curve diagram



THE FORCEFUL

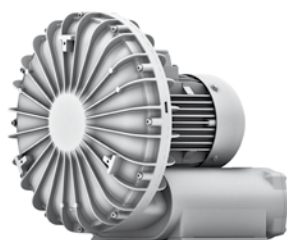
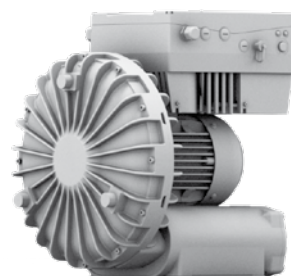
Side channel blowers

Possible versions:

- Suitable for frequency converters
- IE3 - energy efficiency
- Winding protection
- Special coatings
- External drives are possible
- Multiple certificates (EAC, UR (USA / Canada))
- Other special versions available on request

Application examples:

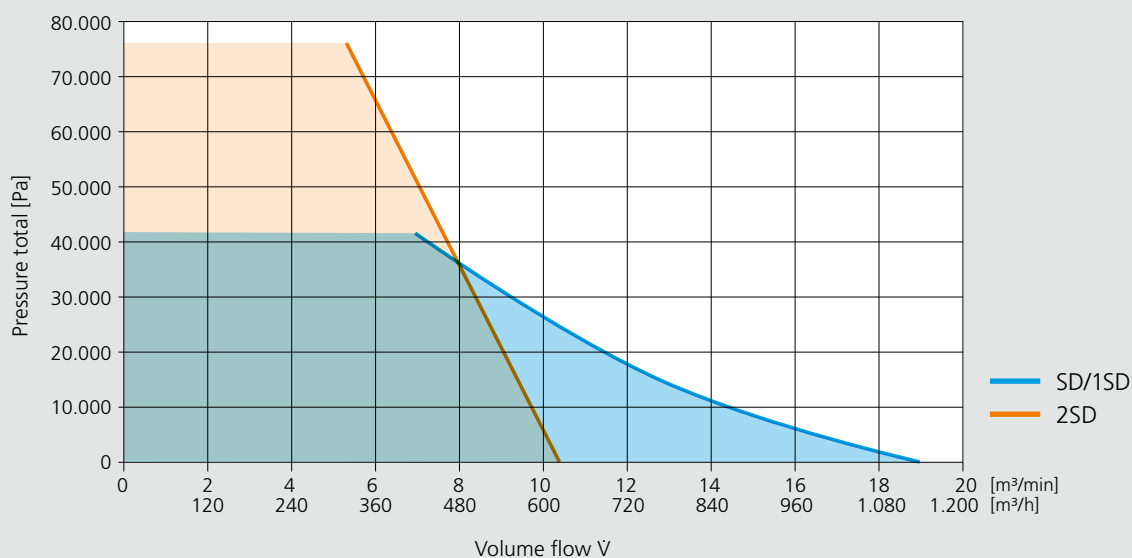
- Pick and Place
- Water processing
- Packing engineering
- Pneumatic conveying systems
- Rail engineering

SD/1SD**2SD****SD FUK**

Side channel blowers from Elektor aircystems – a real classic for many. This product group has been proving itself for years, even under the hardest conditions. The housing made from aluminium cast is also a typical feature just as the one or double stage version.

The side channel blowers are equally suitable for high negative and positive pressures. We offer the 1SD series to meet individual customer needs.

Characteristic curve diagram



THE ECONOMICAL

High Efficiency blowers

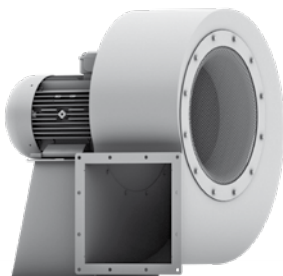
Possible versions:

- ATEX (gas: zones 1, 2 / dust: zones 21)
- Media temperatures also beyond 300 °C
- Increased protection class
- Suitable for frequency converters
- Stainless steel version (1.4301)
- Multiple certificates (EAC, UR (USA / Canada))
- Other special versions available on request

Application examples:

- Cleaning technologies
- Textile industry
- Clean room technology
- Ventilation
- Wind power plants

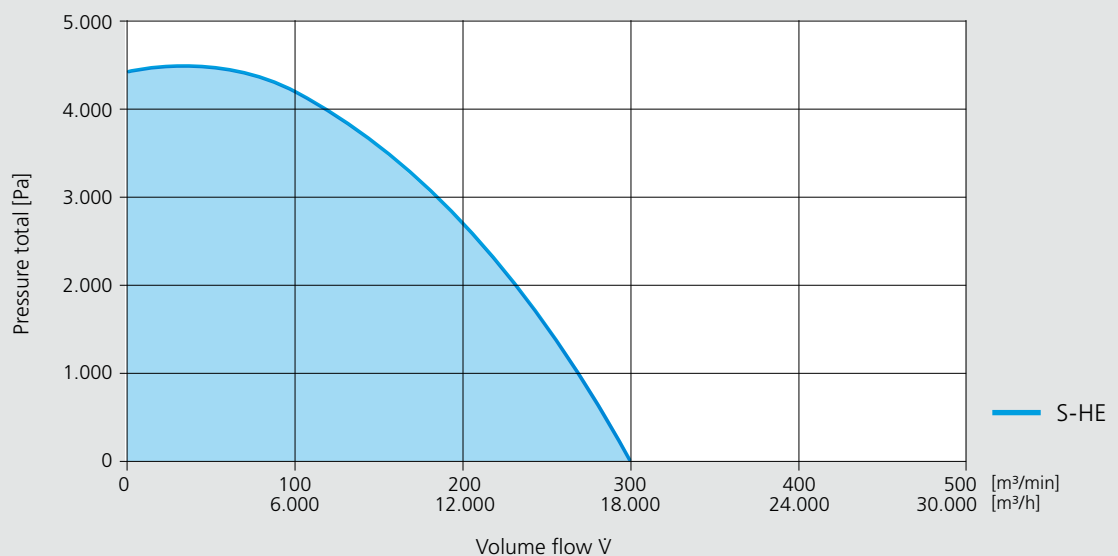
S-HE



A good energy performance requires the efficient use of energy. Elektor offers this series for a resources-conserving operation of the system. High efficiency blowers are characterised by the accurate operating point and efficiency-optimised dimensioning.

Besides the series, the design of the housing made from sheet steel also offers a good possibility for being adapted to customer-specific adaptations, e.g., also into stainless steel (1.4301).

Characteristic curve diagram



THE POWERFUL

High-speed blowers

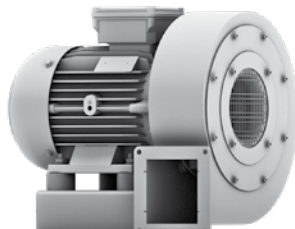
Possible versions:

- Hybrid ball bearing
- Sensor monitoring
- Noise insulation
- Media temperatures up to 80 °C
- Other special versions available on request

Application examples:

- Manufacturing glass
- Bottle drying
- Textile cutting tables
- Manufacturing of corrugated paper

S-XP



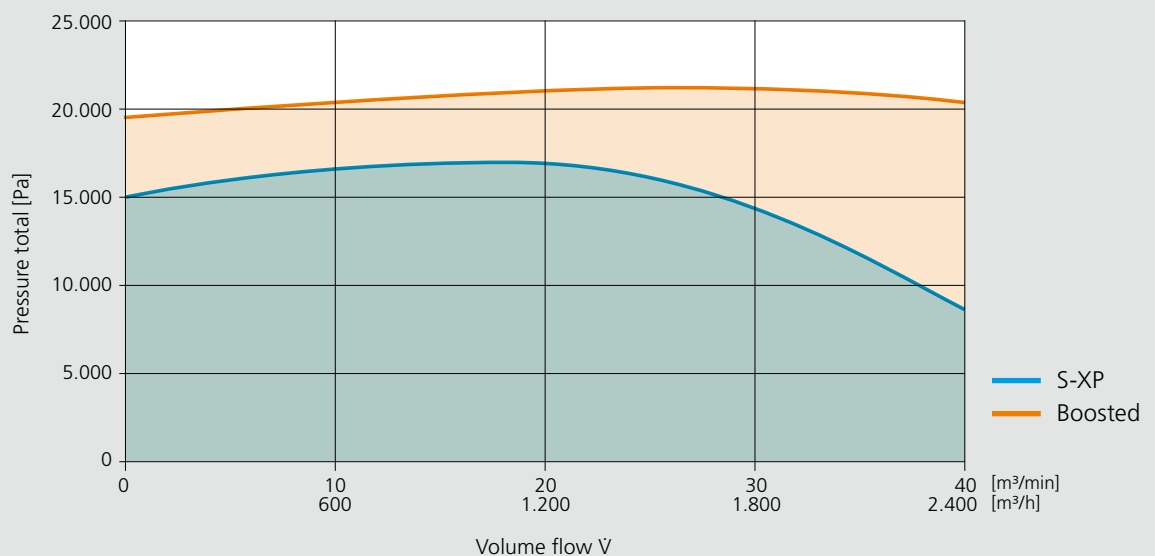
HRD Boosted



Sometimes it is just down to a millimetre. A lot of power does not always mean a large-format version. With a series of high-speed blowers, Elektor offers devices that combine the enormously high power density with an extremely compact design. Speeds up to 12,000 rpm are achieved by using frequency converters.

A high bearing life and an extremely impeller stability characterise these devices. Naturally, these blowers can also be equipped with effective acoustic insulation solutions.

Characteristic curve diagram



THE TRANSPORTER

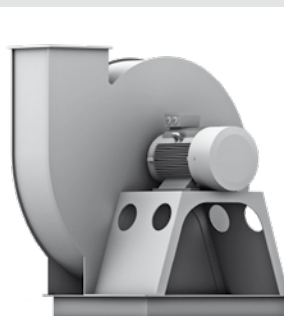
Conveying blowers/fans

Possible versions:

- Media temperatures up to 230 °C
- Increased protection class
- Vibration monitoring
- Suitable for frequency converters
- Multiple certificates (EAC, UR (USA / Canada))
- Other special versions available on request

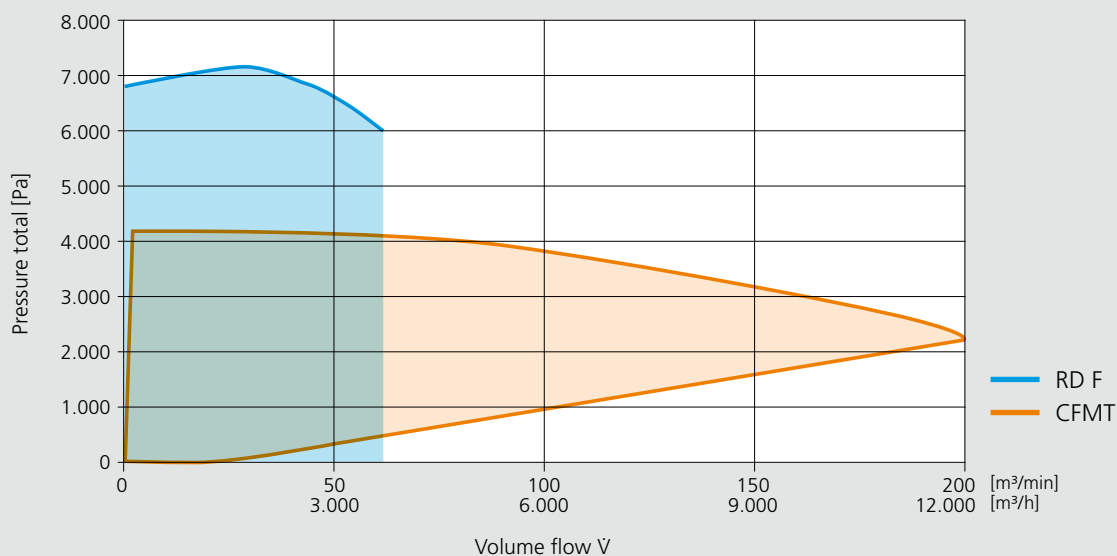
Application examples:

- Conveying granules
- Conveying bulk materials
- Transporting film

RD F**CFMT**

Conveying blowers/fans from Elektor are equipped with a special impeller geometry to allow different materials to be conveyed directly and reliably. You can choose between aluminium or steel housings.

The steel housings are available in different materials and are predestined for customization.

Characteristic curve diagram

THE LINEAR

Axial fans

Possible versions:

- ATEX (gas: zones 1, 2 / dust: –)
- Media temperatures up to 230 °C
- Increased protection class
- Suitable for frequency converters
- Multiple certificates (EAC, UR (USA / Canada))
- Other special versions available on request

Application examples:

- Food industry
- Circulating air applications
- Ventilation

MAF



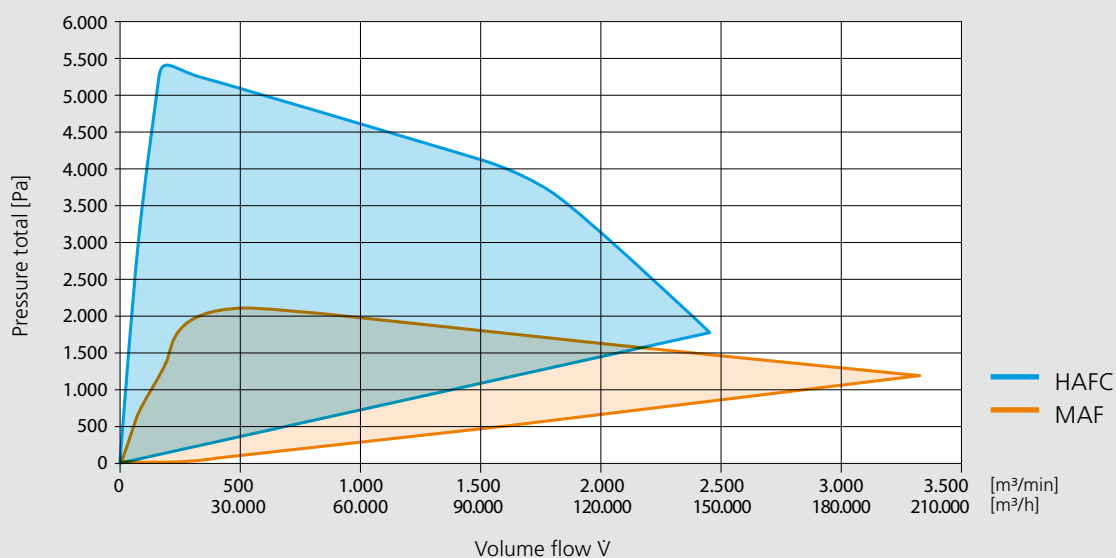
HAFC



Elektor axial fans are used in a wide variety of areas. The robust versions are available as direct drive, belt drive as well as weather protected roof fans.

Moreover, special application-related versions as well as thermal or acoustic insulation measures can be implemented here.

Characteristic curve diagram



THE INTEGRATEABLE

Plug fans

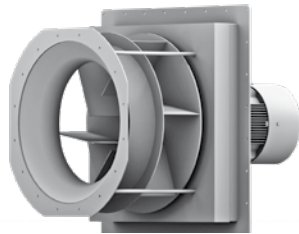
Possible versions:

- ATEX (gas: zones 1, 2 / dust: zone 22)
- Media temperatures up to 750 °C
- Increased protection class
- Suitable for frequency converters
- Application-specific materials
- Thermal insulation
- Multiple certificates (EAC, UR (USA / Canada))
- Other special versions available on request

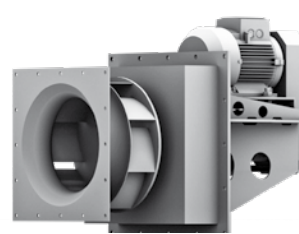
Application examples:

- Furnace construction
- Painting plants
- Drying and cleaning plants
- Air conditioning technology

PFM/PFL direct drive



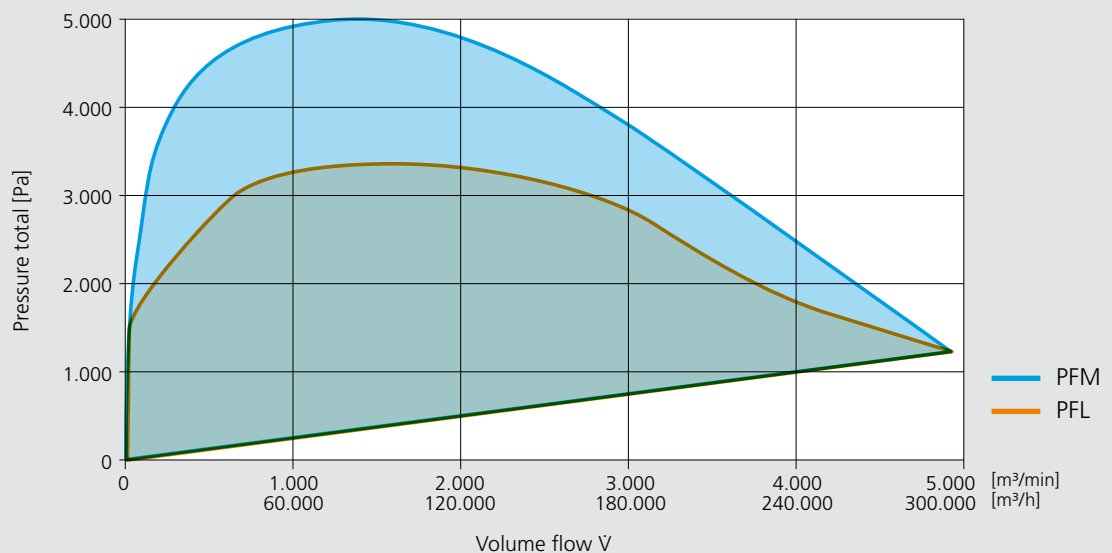
PFM/PFL belt drive



Special installation situations require solutions that are well thought-out. Integrated applications are frequently carried out customer-specifically where a conversation with our experts is worthwhile.

Naturally, direct as well as belt drives are also available. Adapted thermal or acoustic insulation measures are a particularly important option here.

Characteristic curve diagram



ONE-OF A KIND

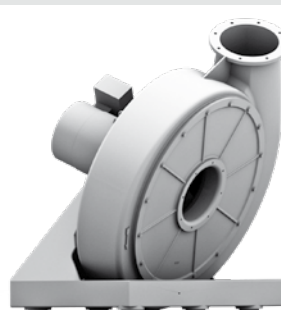
Customized blowers

Standard products can do a lot, but not everything. In some cases customer-specific solutions lead to the desired results. We are more than happy to confront all technical challenges together with our customer. With our first-class engineering competence in all aspects of air technology systems, we develop just the solution that satisfies the uniqueness of our customers.

Thanks to our experience for many years we are also able to make an exceptionally pragmatic approach to tailored solutions. In this way, we are very frequently able to be unique from the innovative idea up to the individual solution, even from an economical point of view. Elektor airsystems is a reliable and present partner from the first phase of the project.

S-MP 480/40 – 50/3,7 SLS

Max. volume flow 22 m³/min, max. pressure increase 5,800 Pa, special customer-specific stainless steel fan with different openings for maintenance, special pressure flange and stainless steel motor, used in the food industry for drying salad after being washed.

RD 94

Max. volume flow 125 m³/min, max. pressure increase 9,600 Pa, with system-specific insulation position, used during the production of cigarettes for fixing during the production.

2E 04

Max. volume flow 10 m³/min, max. pressure increase 350 Pa, dual fan with high volume flow and customer-specific fastening elements, used in the production of plastic film for eliminating the electrostatic charge caused by ionised air.



FULL OF BENEFITS

Accessory components

Possible versions:

- Special accessories for ATEX versions
- Different customer-specific accessory solutions

Noise reduction



- Noise insulation hoods
- Noise insulation cabins
- Disc-type silencers
- Duct-type silencers

Connection, Attachment, Assembly



- Connecting system components
- Adapter elements
- Intermediate elements
- Flanges
- Pressure and intake connectors
- Inlet nozzles
- Y-sections

Control, Regulation, Throttling



- Frequency converter in a switch cabinet and mounted version
- Pressure control valves
- Throttle valve
- Automatic reversing unit
- Ball valve



FULL OF BENEFITS

Accessory components

Possible versions:

- Special accessories for ATEX versions
- Different customer-specific accessory solutions

Vibration reduction



- Bonded rubber buffer
- Rubber vibration damper
- Spring-type vibration damper
- Vibration sensors
- Compensators
- Collars

Filter



- Box filter
- Feine filter

AirKnife



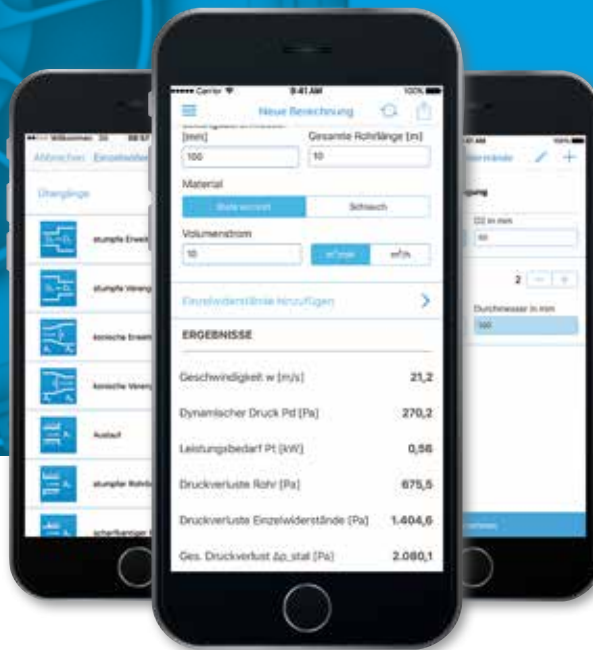
- AirKnife



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CALCULATING AIR FLOW?

With Smart Air, it's easy!



The intelligent app for quick and easy calculation of the key air ventilation figures in one unit.

It can easily detect pressure drops, air speed and power requirements in a pipe system. After entering the line diameter/square side and pipe length, the calculation can be initiated by specifying the material and the desired volume flow.

It is also possible to select individual resistances that impact on the air flow in the pipes. These include fittings (pipe, segment and rectangular bends) and transitions (extensions, restrictions, outlet, pipe end and T-pieces).

The app also works offline and all calculations can be saved and sent by email.

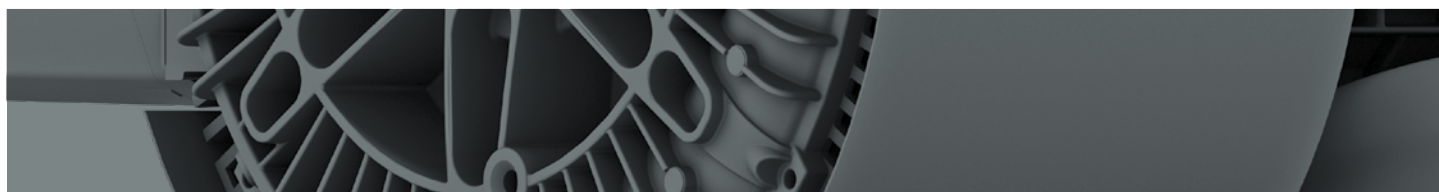
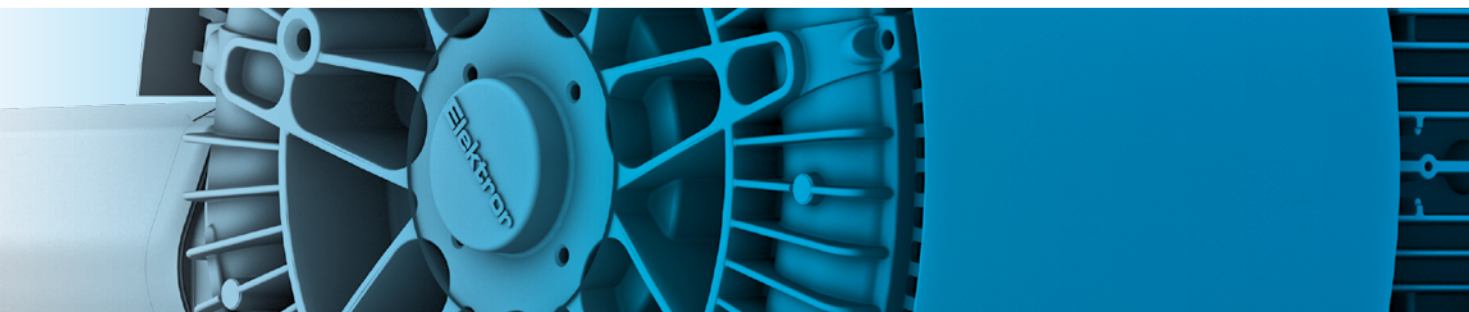
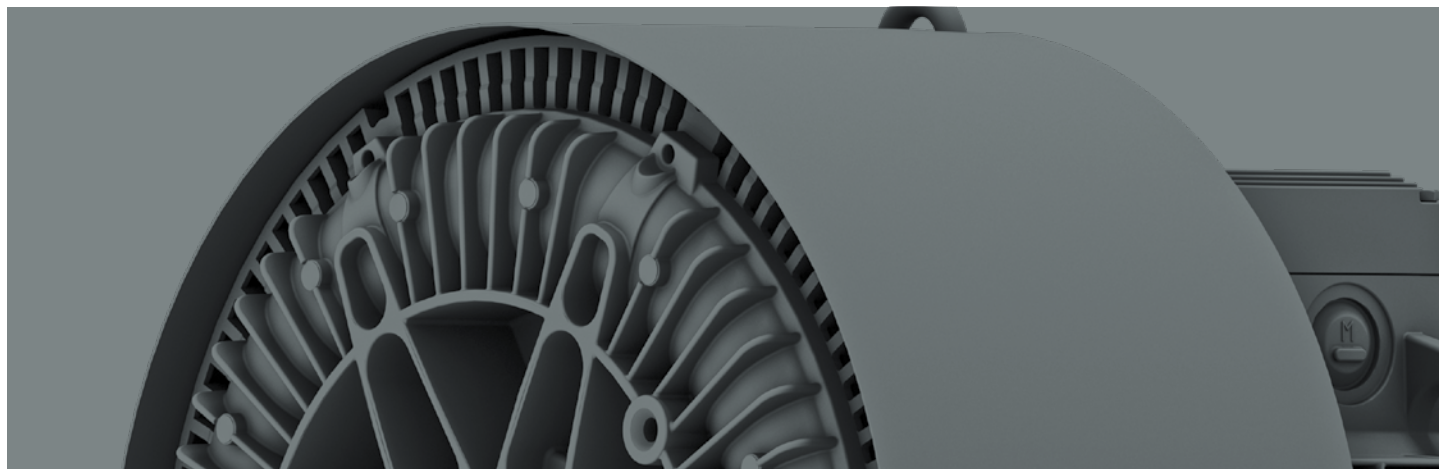


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