Roof fans:
BelAir ventilation systems

An overview of the new roof fans

The advantages lie in the concept:

The **ErP Directive**(Energy related Products) requires ever higher performance at lower energy consumption. Whilst the majority of the industry here is just looking to more cost-efficient motors, we at Nicotra Gebhardt are looking at the whole picture.

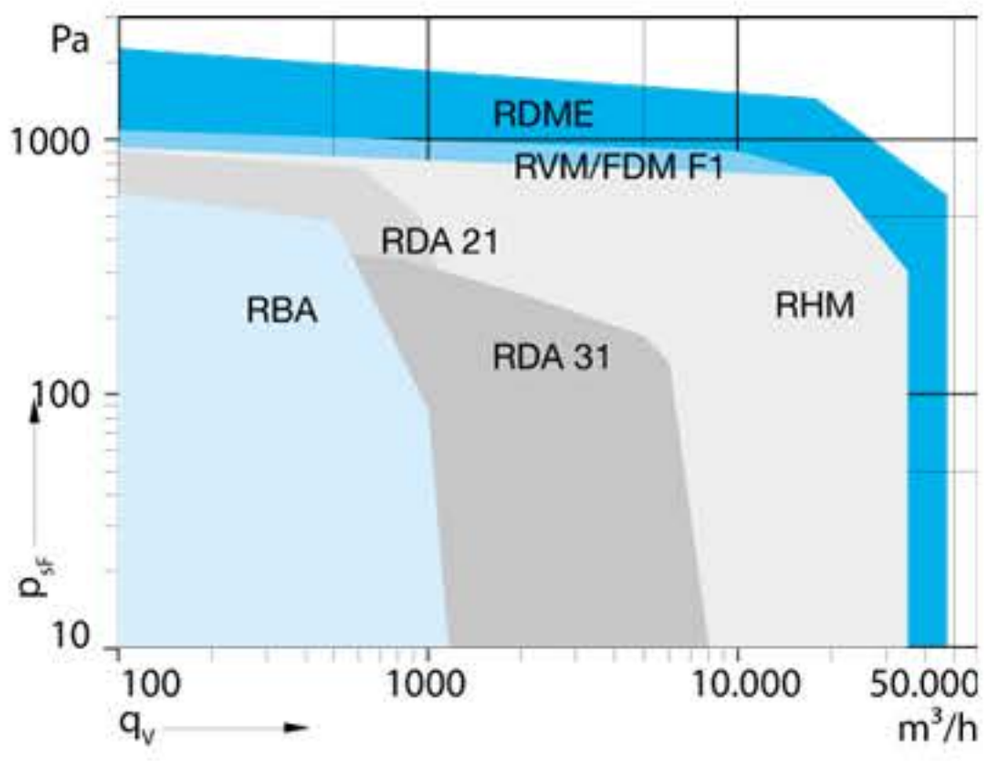
The impeller and housing design are specifically included in our concept in all our models. In the development, we now rely almost entirely on asynchronous internal rotor motors that are available worldwide. And for good reason: Fans with internal rotor motors are systemically superior to systems with external rotor motors.

Systems that use external rotor motors have the disadvantage of the air flow of being cut off by the motor in the impeller. In addition, IE2 and IE3 standard motors exceed the traditional voltage controllable external rotor motors in terms of efficiency.

The same applies to even higher motor efficiencies. Even an impeller driven by a PM internal rotor motor exceeds the energy efficiency of systems with EC external rotor motors.

A further advantage:

External frequency converters do not require a special filter for driving the roof fans. And even if a service is required, motors and frequency converters can be easily replaced in a few, simple steps.



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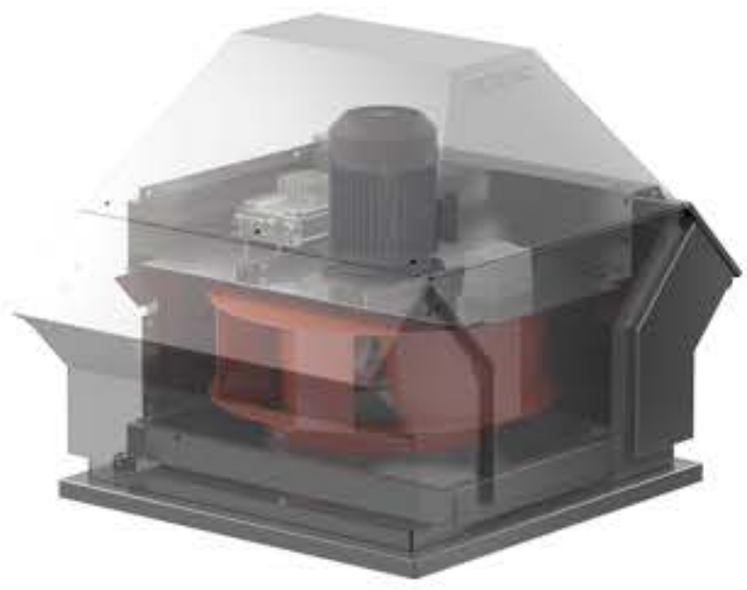
RDME genovent®- The new classic

The extraordinary is a standard with us



The research and development department at Nicotra Gebhardt is known for their sophisticated ideas. A good example is the genovent®, which is full of extraordinary solutions – without asking for extra cost:

- The genovent® can be fitted as easy as plug & play – even when exchanging an existing unit.
- The intelligent design of the genovent® makes it possible to open the fan in a most simple and cost saving manner: Unscrew and ready!
- The back draught dampers protect the fan from intruding snow or rain, and prevents unnecessary heat losses of the duct system. This is built in, no extra back draught damper need be provided.
- A considerable throw of the vertically discharging genovent® protects the roof from dirt deposits and prevents air flow short circuits.
- Flexible and exact modification to the required operating point lowers energy consumption. For the highest efficiency requirements, a PM motor in accordance with IE4 is also available in the RDME. In addition, variants with an integrated frequency converter are configurable.
- Thanks to the structural separation of the motor from the exhaust air, variants with up to 120 degrees media temperature are available for special requirements, such as transporting exhaust air from kitchens.
- genovent® roof fans RDM 31 are also available in ATEX execution acc. to category 3G. (see section ATEX 3G)

In every respect a premium product

- Extremely high quality basic version without surcharge
- Low heat losses
- Long periods of maintenance-free operation
- Simply assembly which does not require special tools
- Simple swivelling out of the housing

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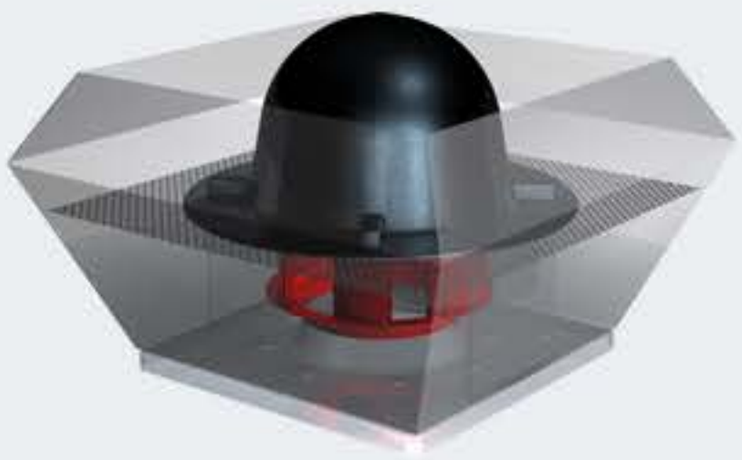

RVM EVO- The efficient allrounder

Economical and quiet like no other

The economical one: The RVM really comes into its own and shines when the costs of operation, assembly and maintenance are important. It can later be seen that the ventilator which is the very best at using energy is also the best investment:

- The unique motor-impeller-housing unit of the EVO series is harmonised in every detail and ensures the highest possible efficiency. This reduces decisive costs, also those over and above incurred during the period it is operating.
- Despite its simply excellent efficiency the RVMEVO has the same basic measurements and operating data as those of earlier models in the Nicotra Gebhardt roof extract units programme. It can therefore be easily and quickly integrated into existing assembly equipment which saves time and money.

The quiet one: One welcome side effect of the new EVO and housing technology is reduction of the sound level generated – without additional sound insulation.

Ready for the next generation

- Asynchronous three-phase current motors according to the High Efficiency classification IE2/IE3 merge with the impeller and housing to produce an efficient unit
- Individual impeller configuration for volume flows of up to 34,000 m³/h
- Simple base mounting based on compatibility with standard measurements
- Exact controlling at the operating point by means of frequency converter operation
- Simple and secure handling which does not require special tools
- Vertical blowing out direction avoids dirt accumulating on the roof
- Motors include voltage controllable models

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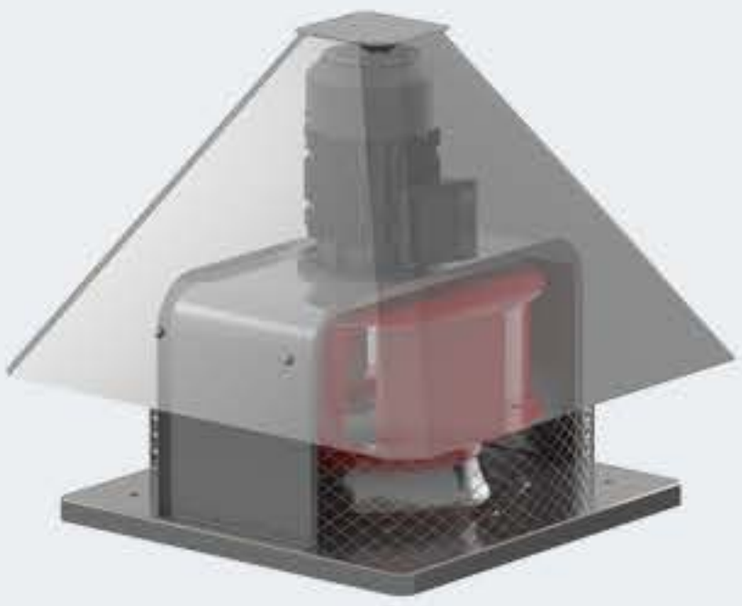
FDM - The quiet specialist

Many reasons for choosing the silent unit

There are cases where a fan has to be silent first: It is for cases like this that the FDM F1 has been designed.

- Cubic design with integrated silencer made of galvanised steel sheet.
- The high performance backward curved impeller assures a smooth operation at high efficiency level
- A wide programme of standard motors.
- Simple installation and inspection
- Full range of compatible accessories
- Motors include voltage controllable models



RHM - The favourably priced power package

Power under the hood for less money

Planners often tender for roof fans with a horizontal blow-out direction due to structural conditions. The maintenance friendly RHM is the price-effective alternative precisely for this application.

- The RHM is fitted with an IE2 asynchronous three-phase motor.
- Simple filterless control by means of external frequency converters or retrofit electronic voltage regulators in defined models.
- Anti vibration mounts guarantee extra low vibration level.
- The high performance impeller with backward curved blades enables particular smooth running.
- Thanks to its low housing losses, it achieves impressively high efficiencies.
- A full range of accessories completes the RHM offer.
- Motors include voltage controllable models

RDA genovent®- The tried and tested classic

The extraordinary is a standard with us

The little brother of the genovent® wins acceptance as a result of its expressive design, its corrosion-resistant aluminium housing and the multiplicity of technical refinements it embodies. Even more astounding is the price of this high performance extract unit. Quality does not have to be expensive: Save money on your first acquisition, operation, assembly and maintenance through:

- an extremely high quality basic version without surcharge
- low heat losses
- long periods of maintenance-free operation
- simply assembly which does not require special tools
- simple swivelling out of the housing

The RDA genovent®: Also with integrated pressure regulation or time switch module for DIN 18017-3 and DIN 1946-6 applications.