

Pure competence in air.

HOW TO GET WHAT YOU WANT

☒ **Dream it**

☒ **Plan it**

☒ **Do it!**

Check list for sales

Core competences, core technologies,
guarantees

REVEN 
SCHAKO Group

The core competences of Rentschler REVEN

are represented by our two protected brand names.

X-CYCLONE® and REVEN®

And what do these stand for? How can we define the core competence founded in these brand names?

The brandname **X-CYCLONE®** stands for

The knowledge of how to separate liquid aerosols from an exhaust air flow.

The advantage for the user is to receive a product that works with a high separation efficiency.

The X-CYCLONE® technology is patented for another 10 years, it is a registered trademark and therefore difficult to imitate.

The brandname **REVEN®** stands for

The knowledge of how to capture air pollutants from cooking and manufacturing processes.

The advantage for the user is to get a product that works with a high-efficiency capture performance.

The REVEN® technology is patented for another 12 years, it is a registered trademark and therefore difficult to imitate.

Our core technologies are *

- **X-CYCLONE® Technology** – the heart piece of all our products.
- **REVEX® Technology** – automatic self-cleaning, but also air washing and disinfection.
- **REVEN® Technology** – for optimized capture and condensation control.
- **RSC Technology** – for demand-controlled supply and exhaust air in kitchens.
- **XSC Technology** – for variable control of the suction power in machine tools.

See video: <https://youtu.be/N2nBJjwwHbl>

Our **X-CYCLONE® Technology**

- can be used for the separation of all kinds of air-borne pollutants, such as aerosols, mists and vapours, i.e. airborne liquid particles of any kind no matter whether its water, oil, plasticizer, chemical coating or varnish.
- can be used when the portion of liquid particles is greater than the portion of solid particles.

Our **REVEX® Technology**

- can be used if the portion of liquid airborne particles is smaller than the portion of solid particles.
In this case, the use of REVEX® technology is essential.
[See video at \[reven.de\]\(https://www.reven.de\) / section „Technologies“](#)
- can be used for the fully automatic cleaning of the X-CYCLONE® separators on both sides. This ensures a maintenance free operation of our air cleaners in the processing industry, in food production and processing and in commercial kitchens.
- can be used for disinfection required in food preparation and processing. The efficient cleaning of the separators using the REVEX® technology provides disinfection and prevents bacteria growth.

Our **REVEN® Technology**

- can be used for high efficiency capture of thermal air flows generated by cooking equipment or production facilities.
[See video at \[reven.de\]\(https://www.reven.de\) / section „Technologies“](#)
- can be used for high efficient separation due to the air-induction with untempered air.
It improves the separating efficiency considerably.
- provides a reliable prevention of condensation in the exhaust air ducts.
- reduces the supply of tempered supply air to the room.

Detailed information about the REVEN® technology is available at www.reven-induktion.de

* Please talk over and explain all the points in detail with the client!

Our **RSC and XSC Technology** means computer-controlled management of exhaust, supply air and extraction power

- **RSC for commercial kitchens** adjusts the flow of exhaust and supply air fans continuously according to the cooking activities as required by the innovative Industry 4.0 concept and allows a reduction of energy consumption costs of up to 50 %.
- **XSC** ensures the continuous control of the extraction flow **for a machine tool** according to the processing activity as required by the innovative Industry 4.0 concept and cuts energy consumption by 50 %.

See video at www.speed-control.info

The **Function and Efficiency** of all our technologies is proven by

- FID and particle measurement [as described in our USB catalogue on page 14 or at \[reven.de\]\(http://reven.de\) / section „About REVEN“](#)
- FID and particle measurement equipment, that can be used at the place of installation and operation to prove the function and efficiency of our equipment. This should also be added to every design specification.
- CFD analyses [as described in our USB catalogue on page 30 or at \[reven.de\]\(http://reven.de\) / section „Technologies“](#)

Important **Note on Exposure Limit Values** in connection with air cleaners

Many studies have revealed that outdoor air pollution in cities has a decisive influence on the health and mortality rate of exposed people. For this reason, Rentschler REVEN has based the design and dimensioning of its equipment on the far more stringent outdoor exposure limits adopted in the metropolises of the world. In many large cities, the maximum permitted concentration of fine dust is 50 micrograms per cubic metre of air.

[Described in our USB catalogue on page 34 + 38 or at \[reven.de\]\(http://reven.de\) / section „Technologies“ on the bottom of the page.](#)

Important **Note on Flame Resistance** in connection with aerosol separators

The flame-arresting capability of the X-CYCLONE® separators has been tested and proven. In addition, their behaviour in the event of an explosion has been examined.

[Described in our USB catalogue on page 40 + 41 or at \[reven.de\]\(http://reven.de\) / section „Technologies“ on the bottom of the page.](#)

Our air cleaners guarantee *

- **Higher productivity** – because of reduced downtimes of production plants due to less maintenance work on the extraction system.
- **Higher product quality** – due to constant thermal conditions during production, e.g. on milling and turning machines, and also in food-preparation or food-processing facilities.
- **Lower maintenance and cleaning costs** – due to improved air cleaning.
- **Lower labour costs** – due to safer and more productive workplaces.
- **Lower installation costs** – due to safe air cleaners.
- **Lower consumption costs in production processes** – because media and materials are recovered instead of replaced and disposed of. This applies to the separators as well as to the separated media (liquids).
- **Lower maintenance costs of your production sites** – due to highly efficient recirculation systems instead of complex air extraction centres.
- **Considerably longer service life** – due to the use of 100 % rust-proof stainless steel.
- **Lower operating costs** – due to energy-saving air cleaners. Separators have a much lower air resistance than filters, separating is more reasonable than filtering. It also reduces operating costs through computer-controlled airflows and the use of LED lights in the workplace in commercial kitchens.
- **Safer plants** – due to flame-arresting and explosion-protected air cleaners.

Our **Product Range** comprises the following air cleaner systems *

- X-CYCLONE® **Compact Systems** – compact air cleaners ready for connection.
- X-CYCLONE® **Smoke Filters** – air cleaners for smoke, dust and gas generated in the electrical, photovoltaic, laser and metal industries.
- X-CYCLONE® **Duct-Mounting Systems** – duct-mounting air cleaners suitable for the installation in exhaust air ducts.
- X-CYCLONE® **Capture Systems** – air cleaners suitable for the installation above production facilities.
- X-CYCLONE® **Ceiling Extractors** – air cleaners suitable for room-spanning installation at the ceiling

* Please talk over and explain all the points in detail with the client!

Important **Outstanding Features** of the different X-CYCLONE® **Products**

We have listed the outstanding feature for each of our products in our USB catalogue under "Technical Highlights". If you know in which products your client is interested then you should read the highlights once more before the conversation.

For the compact **X-CYCLONE® CR air cleaners** the following **Highlights** are listed:

- Patented high-performance X-CYCLONE® separating system with an efficiency rate of up to 99.9999 %.
- Patented REVEX® spraying technology with cleaning and air washing function.
- Sustainable air-cleaning concept thanks to the use of cleanable separators.
- Fan impeller and motor with energy-efficient eco-design in accordance with the European Directive on Energy-related Products (ErP). Energy-saving potential of up to Euro 2,000 per year compared to traditional air cleaners.
- Efficiency and function of the air cleaner proven by CFD flow analysis.
- Flame-arresting X-CYCLONE® basic elements, tested in accordance with UL 1046, ULC-S 649, JFEA, DIN 18869-5 and DIN EN 16282.
- Agglomeration system made of stainless steel, suitable for the removal of PM_{2.5}.
- Enclosure 100 % rustproof in accordance with the requirements of the German trademark association for stainless steel Warenzeichenverband Edelstahl Rostfrei e.V.
- Intelligent functional display.
- Designed, constructed and produced in Germany.
- State-of-the-art design protected by international design patent rights.
- Lifetime guarantee on the X-CYCLONE® basic separator elements and the corrosion resistance of the enclosure.

Analogously, the following **Highlights** are listed for **CYCLONE® Capture Hoods with REVEN® Air-induction Technology and REVEX® Spraying System**:

- Integrated, patented REVEX® spraying system for fully automatic cleaning and disinfection of the aerosol separators on both sides.
- New, internationally patented air-induction nozzle for the efficient capture and cleaning of the exhaust air.
- Efficiency and function of the REVEN® air-induction nozzle, capture hood and separators proven by CFD flow analyses.
- Integrated air-induction system preventing draughts and ensuring compliance with the maximum permissible supply flow rates.
- More efficient separation through condensation of the vapour molecules in the separator supported by air-induction.
- State-of-the-art integrated LED fixture with dimmer, reduction of the energy consumption by up to 50 % in comparison to conventional T5 and T8 fixtures.
- Fire protection in the exhaust duct due to flame-arresting X-CYCLONE® basic elements, tested in accordance with UL 1046, ULC-S 649, JFEA, DIN 18869-5 and DIN EN 16282.
- Lifetime guarantee on the X-CYCLONE® basic separator elements and the corrosion resistance of the hood frame.

Important **Tools** that should be mentioned in a presentation of our products

- Our **references on our websites** with pictures and videos (A picture can say more than a thousand words).
www.reven-food.com
www.reven-industry.com
www.reven-video.com
- The **RECOMAX** design software based on DIN EN 16282-1 for ventilation systems in the food industry and in commercial kitchens that is available in German and English free of charge
at [www.reven.de / Rubrik „Downloads“](http://www.reven.de/Rubrik_Downloads).
- Parallel to our USB catalogue, all other catalogues are available online in twelve different languages
at <http://webkiosk.reven.de>



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