REICH

taste engineering



AIRMASTER®

EN

Into the future with vision, a focus on customers and engineering excellence

Since 1893, our goal has been to generate added value for you and your products and processes, through expertise and the power of innovation. However, tradition alone is not what makes us a good machine manufacturer. Rather, it serves as the foundation on which we build our future corporate development.

To do so, it is essential that we understand the requirements for your products and processes in detail. Only with this knowledge, we can develop innovative solutions that offer true added value every day. We do this through the close collaboration of our engineers and process technologists, who have the exciting job of bringing the two worlds of »mechanical engineering« and »food production« together.

At the same time, we remain open and sensitive to new technologies and we are ready to continue our dynamic development in recent years by further investments.


TOBIAS LAYER


STEFFEN JAISER

taste engineering – since 1893

REICH is Germany's oldest name in the area of thermo-processing systems for food and is considered one of the world’s leading providers in this industry. We offer solutions for thermal treatment of meat and sausage, fish, poultry, cheese, convenience food, vegan and vegetarian products and pet food.



The best partner produces solutions before a problem occurs

At our headquarters near Stuttgart, our development engineers work on the latest processes to meet the growing expectations of our customers worldwide.

We consider ourselves as reliable, innovative and dynamic partner to the food industry. The philosophy behind our products is clear: Uncompromising quality, paired with the best performance and efficiency.

To achieve this goal, we are prepared to continue learning and improving every day.





Made in Germany
Made for you

REICH stands for “Made in Germany” quality and reliability.

All REICH systems are produced in our plant with a high level of vertical integration from design to state-of-the-art sheet metal production to the final product, with outstanding quality. Carefully selecting top-class materials and components is one of our highest priorities. The fully assembled machines are inspected thoroughly on the strictest specifications. Our customers all around the world receive a ready-to-install system that can start operating within a very short time. REICH also sets extremely high internal standards for customer care and after sales services.

Take a look at what we offer – we would be happy to explain how our systems are manufactured at your personal factory tour.





















MEAT & SAUSAGE

Meat and sausage products are diverse and challenging due to the wide variety of product selections involved, which often differ by region. In addition, reproducibility, uniformity and yield are important parameters.

Because of this, the requirements for the universal unit and the smoke generator system are very diverse. With its wide portfolio, REICH offers the perfect solution for every product.

AIRMASTER®

38 | UK
42 | IC INTERCOOLER
46 | UKQ AIRJET
52 | BKQ AIRJET
54 | KK | IKK
56 | KKRI CLIMASTAR
58 | KRAI | KNRI CLIMASTAR
60 | KKRI-DK CLIMASTAR
64 | ATA CLIMASTAR

FISH

Fish is a valuable product. It is diverse and challenging in the variety of thermal processes used to treat it. Clever, technologically appropriate drying and smoking processes are essential to achieve perfect product quality and optimal yield. REICH began focusing on the fish industry many years ago and developed specialised solutions ever since.

Our expertise generates both quality-related and financial benefits for you. More and more companies producing fish fillets, for example, trust in the unique **REICH AIRMASTER® UKQ** concept.

AIRMASTER®

38 | UK
42 | IC INTERCOOLER
46 | UKQ AIRJET
54 | IKK
58 | KRAI CLIMASTAR
64 | ATA CLIMASTAR

POULTRY

High-quality poultry products require particularly sensitive processing. Due to their diversity, each type of product requires a custom thermal treatment.

The optimal technological process is therefore a basic requirement for perfectly tasty and sensorial appealing products.



AIRMASTER®

38 | UK
42 | IC INTERCOOLER
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52 | BKQ AIRJET | KBK
54 | IKK | KK
56 | KKRI CLIMASTAR
58 | KRAI | KNRI CLIMASTAR
60 | KKRI-DK CLIMASTAR
64 | ATA CLIMASTAR

CHEESE

Adding a smoke flavour to different cheese products is one of today’s top food trends. Cheese, however, is extremely sensitive to process. Uniformity, texture and taste are important. Because of this, producing refined cheese products requires comprehensive experience and precise thermal treatment.



AIRMASTER®

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54 | IKK
56 | KKRI CLIMASTAR
58 | KRAI | KNRI CLIMASTAR

VEGGIES

Interest in vegan and vegetarian foods continues to grow. Alternative proteins like tofu, seitan, soy and others are becoming a larger part of our diets.

Especially with these alternatives, the unique taste of the product can be a particular challenge. We can help you to form taste identities and improve consumer enjoyment.



AIRMASTER®

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SNACKS

Today, snack products are highly important. Perfectly packaged, easy-to-handle sticks, bars, balls or other small product formats make for the perfect bite at work, while travelling or during leisure or sports activities.

Often, snacks are offered as equalised products with a defined weight, which results in high demands on the precision of the thermal treatment.

AIRMASTER®

38 | UK
46 | UKQ AIRJET
52 | BKQ AIRJET | KBK
58 | KRAI CLIMASTAR

CONVENIENCE

Today, making sure you can get good nutrition even when you are on a tight schedule is becoming more important. Convenience products, foods which have already gone through certain processing stages, offer a good alternative.

Special requirements for the thermal processing system arise from the often very high process temperatures and the required uniformity of product treatment.

AIRMASTER®

38 | UK
42 | IC INTERCOOLER
46 | UKQ AIRJET
52 | BKQ AIRJET | KBK
54 | IKK | KK
64 | ATA CLIMASTAR

PET FOOD

The demand for pet food, in particular for dried snack products and treats for pets, continues to grow. These products require a wide variety of different processing procedures.

In addition to high-performing, efficient drying and correct, professional thermal treatment, processes also need to be economical and resource-saving.

COMPETENCE NETWORK PET FOOD

REICH is a member of the
Pet Food Competence Network

petfoodcompetencenet.com



AIRMASTER®

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EFFICIENCYPLUS



THE REICH ADDED VALUE

The biggest challenge in producing thermally treated foods is ensuring consistently high quality between product batches and of each individual finished product. Not only sensory perception and appearance, but also yield and the economic efficiency of the overall process play an important role.

The solution to meet these demands is the unique, modular design of the REICH AIR-MASTER® system. Based on a clever, modular system, each system housing consists of one or more tightly welded chamber modules, depending on the size of the system. Each module has a separate, high-powered fan unit as well as a heat exchanger for heating and optional cooling.

The biggest advantage of this modular system compared to systems with a central air handling unit is, that each trolley can be supplied precisely and equally with air, heat or cooling energy, ensuring absolute uniformity between trolleys even in large systems.

The very high air circulation levels and intelligent air guidance typical in REICH systems, enable short, efficient processes, uniform products and the highest possible yield.

Components like the controller, smoke generator or cleaning system can be individually arranged depending on your needs or available space.

ADDED VALUE OF THE REICH MODULAR DESIGN

- Highest air performance
- Short, energy-efficient processes
- Maximum yield
- Greatest possible uniformity
- Best product quality
- High loading capacity

BLUECONNECT

EVERYTHING UNDER CONTROL INDEPENDENT OF THE TIME, LOCATION AND DEVICE

REICH BlueConnect is the central hub for controlling, monitoring and recording the operating and service processes of all REICH systems.

Intuitively productive. Create program sequences and recipes using the easy-to-understand dashboard and keep an overview of all process parameters at all times.

Real time. Gain access to all relevant functions of connected REICH systems, anywhere and from any device. Push notifications inform you synchronously regarding the status and vital parameters of the production.

The cloud solution is based on the latest technical security standards. In addition to the controller, maintenance services can also be monitored and initiated – including remote access and live tracking of spare parts deliveries.

Event log. Logging of all of the machine's vital parameters in a process- and time-dependent manner to identify maintenance requirements early on (predictive maintenance).





REICH BLUECONNECT

Transparent processes, capacity levels and diagnostics: With the REICH BlueConnect app, you can monitor processes remotely, 24/7, from anywhere worldwide and on any device online.

AIRMASTER®-Series







PERFECT ALLROUNDER

The REICH AIRMASTER® UK is a true all-around choice and a classic system from REICH. Its applications range from warming to drying, hot and cold smoking, cooking, hot air cooking and even baking, maturing and cooling.

It works with vertical airflow and was developed primarily for hanging products.

POWERFUL HYBRID

The REICH AIRMASTER® IC InterCooler is a fully equipped hybrid system that combines the functions of a universal system (AIRMASTER® UK series) with those of an intensive cooling system (AIRMASTER® IKK series). This makes it possible to integrate all thermal processes, in particular intensive cooling, in a single system. It works with vertical airflow and was developed primarily for hanging products.

PRECISE POWER PACK

The AIRMASTER® UKQ AIRJET is the world's most powerful cross-flow universal system. Thanks to its extremely high power reserves, it can provide production capacities well above the normal levels. The uniform drying and heat treatment provided by this system exceeds that of any competitor.

This cross-flow system works with completely horizontal, alternating airflow and was specially developed and optimised over many years for lying products.

AIRFLOWTECHNOLOGY | 1

THE PRODUCT DETERMINES THE AIRFLOW
Homogeneous and efficient drying and thermal treatment is essential for the quality and standardisation of the final product. Ideally, the airflow should be parallel to the product, so that the air can flow over the product with the least possible resistance, dissipating heat and absorbing moisture.

UNIVERSAL SYSTEMS WITH VERTICAL AIRFLOW AND THE REICH FLEXFLOW SYSTEM



VERTICAL FLOW SYSTEM

VERTICAL AIRFLOW

Based on the principle explained above, the vertical airflow was specially developed for hanging products. One strength of all REICH AIRMASTER® systems is the particularly high levels of air circulation they achieve. In combination with smart airflow guidance within the system, these plants can achieve exactly the technologically required, equal drying needed, even in the upper area of the trolley. This helps avoiding overdrying of products and reduced yield.



VERTICAL AIRFLOW WITH ALTERNATING FLAPS – THE REICH FLEXFLOW SYSTEM

Upon request, REICH systems can be equipped with vertical airflow and alternating flaps. This FlexFlow system allows for variable airflow supply into the treatment chamber. Different flap positions generate highly turbulent airflows and move the air breakpoint over different areas of the trolley. This is an advantage for products that lie flat or for densely loaded trolleys, to achieve much more equal product treatment.



FLEXFLOW SYSTEM

ADVANTAGES OF FLEXFLOW SYSTEM

- Improved uniformity
- Shortened process times
- Increased yield through reduced loss of weight
- Increased trolley loadings
- Improved energy efficiency

AIRFLOWTECHNOLOGY | 2

THE PRODUCT DETERMINES THE AIRFLOW
Homogeneous and efficient drying and thermal treatment is essential for the quality and standardisation of the final product. Ideally, the airflow should be parallel to the product, so that the air can flow over the product with the least possible resistance, dissipating heat and absorbing moisture.

UNIVERSAL SYSTEMS WITH HORIZONTAL AIRFLOW



HORIZONTAL CROSS-FLOW SYSTEM

Many products lie on grates, sheets or even in closed stainless steel trays.

Typical lying products include, for instance, salmon fillets or convenience products sold in trays, meat products in moulds, lying snack products or pet food sticks extruded directly onto grates. Regardless of the product specifications, the manufacturers of all of these products have the same goal: to achieve high trolley loadings for the most efficient production possible.

Depending on the product type and geometry, up to 42 levels can be placed on a single trolley. What is important is that the products are treated absolutely equally across all levels of the trolley and within the system.

In practice, homogeneous, efficient treatment of all products with this kind of high trolley loading is not possible with vertical airflow. This is true even for systems with the alternating flap system described above.

After starting to work with the fish industry, which works quite a lot with lying fillets, REICH started developing systems specifically for these lying products decades ago.

Today, REICH is global leader in the area of thermoprocessing systems with horizontal cross-flow.

This cross-flow systems work according to the principle that air must be flowing parallel to the product in order to ensure uniform and optimal treatment.

Systems in the REICH AIRMASTER® UKQ and AIRMASTER® BKQ series cause air to flow absolutely horizontally from one side into the treatment chamber of the system and suction it out again on the opposite side. The direction of airflow changes at variable intervals.

ADVANTAGES OF HORIZONTAL CROSS-FLOW SYSTEM

- Up to 120 % more capacity
- Up to 42 levels per trolley (at a trolley height of 2 meters)
- Highest possible uniformity in product treatment
- Standard deviation up to lower than 1 %
- Maximum yield of final products
- Fastest possible amortisation of your investment

AIRMASTER® UK

Universal system with vertical airflow and optional REICH FlexFlow system



VERTICALFLOW

FLEXFLOW

PERFECT ALLROUNDER

The REICH AIRMASTER® UK is a true all-around choice and a classic system from REICH. Its applications range from warming to drying, hot and cold smoking, cooking, hot air cooking and even baking, maturing and cooling. It works with vertical airflow and was developed primarily for hanging products.

If the optional **REICH FlexFlow** alternating flaps are used and the trolley loading is adapted, lying products can also be manufactured optimally.

UK universal systems are available in sizes from 1 to 16 trolleys in a single-row and 2 to 24 trolleys in a dual-row entrance.

INDIVIDUALLY CUSTOMISED

The AIRMASTER® UK is available with optional special equipment for maturing, climatic smoking or even high-temperature baking and cooling of cooked foods. The integrated, fully-automated CIP cleaning is part of the standard equipment.

ADVANTAGES OF THE AIRMASTER® UK

(For details on the modular design, see page 28)

- Highest air volumes
- Short, energy-efficient processes
- Highest possible uniformity in product treatment
- Maximum yield
- Best product quality
- High loading capacity
- Tightly welded chamber modules, made entirely of stainless steel 1.4301 (AISI 304)
- Full mineral insulation, no uninsulated housing components
- Small installation width and height
- Stable, reliable and durable

FLEXIBLE. LIKE YOU.

A wide range of available equipment options ensure that you can configure your system to precisely match your specific requirements. Systems can be equipped with electric heating, steam heating, gas or oil burner heating if desired.















AVAILABLE SPECIAL EQUIPMENT
(Details are available on our website)

- Viewing window with lighting
- Transit version (tunnel)
- REICH FlexFlow alternating air flap system
- REICH RecyclingSmokeCooler (RSC)
- Air conditioning package
- Cooling shower with ECO-Boost
- High temperature design up to +200 °C
- Heavy-duty floor / special floor
- Lifting doors
- Hanging rail design
- CIP cleaning with pressure boosting







THE REICH INTERLOCK SYSTEM
This smart, patented door system automates numerous opening, closing and drainage processes in a safe and hygienic manner. For example, the machine door can be partially opened at any point of the program for drainage, then be closed again. In systems in a transit version, both doors are interlocked to ensure complete separation between the low risk and high risk side at all times. A signal light integrated at eye height also provides information on the system's current operating state.



AIRMASTER® IC

Combined universal and intensive cooling system with vertical airflow and optional REICH FlexFlow system



VERTICALFLOW

FLEXFLOW

POWERFUL HYBRID

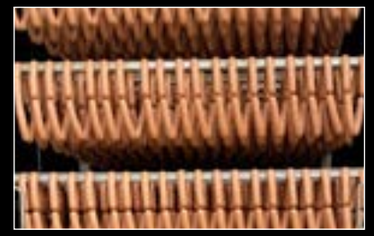
The REICH AIRMASTER® IC InterCooler is a fully equipped hybrid system that combines the functions of an universal system (AIRMASTER® UK series) with those of an intensive cooling system (AIRMASTER® IKK series). This makes it possible to integrate all thermal processes, in particular intensive cooling. It works using vertical airflow and was developed primarily for hanging products. If the optional **REICH FlexFlow** alternating flaps are used and the trolley loading is adapted, lying products can also be manufactured optimally.

InterCooler systems are available in sizes from 1 to 16 trolleys in a single-row and 2 to 24 trolleys in a dual-row entrance.

The AIRMASTER® IC InterCooler can be used in almost unlimited potential applications. These range from classic applications like warming, drying, smoking, cooking, baking, hot air cooking etc. to all kinds of cooling processes, from continuous showering to interval showering (with and without ECO-Boost fine atomisation) and full intensive cooling. Manufacturing small sausages, for instance, is a breeze, delivering a juicy, plump product within shortest process time.

ADVANTAGES OF THE AIRMASTER® IC INTERCOOLER

- All processes in a single system: warming – drying – smoking – cooking – showering – intensive cooling
- Ready to package goods after a continuous process chain
- Best possible microbiology
- Requires no expensive, maintenance-intensive transportation system
- Works without zone separation, so there are no downtimes of individual system sections
- 100 % flexibility, 100 % utilisation
- Lower costs
- Less required space
- PLUS all of the other advantages of the REICH AIRMASTER® UK series











AVAILABLE SPECIAL EQUIPMENT
(Details are available on our website)

- Viewing window with lighting
- Transit version (tunnel)
- REICH FlexFlow alternating air flap system
- REICH RecyclingSmokeCooler (RSC)
- Heavy-duty floor / special floor
- Lifting doors
- Hanging rail design
- CIP cleaning with pressure boosting

STANDARD ON INTERCOOLER SYSTEMS
- Air conditioning package
- Cooling shower with ECO-Boost



UNIQUE FEATURES OF THE AIRMASTER® INTERCOOLER

The REICH InterCooler is the perfect alternative to semi-continuous systems and impresses with multiple advantages. It is capable of implementing all process steps within a single treatment chamber.

This eliminates the need for both separate temperature zones and technically complex intermediate doors and transportation systems within the system. This is not only less expensive, but also faster, more robust and significantly more flexible.

A REICH InterCooler system can be utilised 100 % at all times, in contrast to semi-continuous systems, which have the major disadvantage of causing empty areas in one of the two zones, which significantly reduces the utilisation of the overall system. This means that ultimately, fewer InterCooler systems are required to achieve the same capacity as a production with semi-continuous systems.









AIRMASTER® UKQ AIRJET

High-performance cross-flow universal system with horizontal airflow



HORIZONTAL CROSSFLOW

PRECISE POWER PACK

The AIRMASTER® UKQ AIRJET is the world's most powerful cross-flow universal system. Thanks to its extremely high power reserves, it can provide production capacities well above the normal levels. The uniform drying and heat treatment provided by this system exceeds that of any competitor. This cross-flow system works with completely horizontal, alternating airflow and was specially developed and optimised over many years for lying products.

UKQ systems are available in all desired sizes from 1 to 12 trolleys in a single-row design.

Depending on the product, up to 42 levels per trolley are possible. In comparison to commonly available systems, it is possible to achieve double the loading capacity for many products.

Combined with shorter process times thanks to the outstanding air circulation volume, the system can even achieve significantly greater increases in capacity. When it comes to uniformity and effectiveness, the AIRMASTER® UKQ AIRJET is considered the benchmark in thermal treatment of lying products. This precision increases profits by ensuring maximum yield.

In addition, the AIRMASTER® BKQ AIRJET is available as a cross-flow baking system for process temperatures of up to +300 °C (see page 52).

ADVANTAGES OF THE AIRMASTER® UKQ

- Horizontal airflow, optimal for lying products
- Alternating blowing and suctioning of air
- Up to 120 % more capacity
- Up to 42 levels per trolley
- Independent of any specific level position on the trolley
- Highest possible uniformity
- Standard deviation up to lower than 1 %
- Gentle product treatment
- Maximum yield of final products
- Fastest possible amortisation of your investment
- PLUS all of the other advantages of the REICH AIRMASTER® UK series





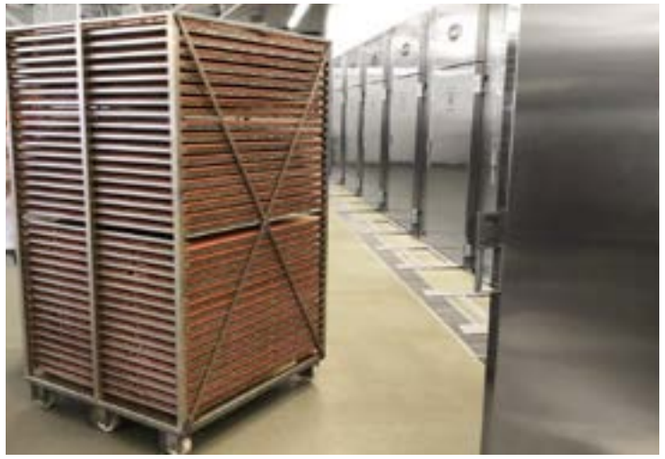












The applications of the REICH AIRMASTER® UKQ range from warming to drying, hot and cold smoking, cooking, hot air cooking and even baking. If desired, the system is available with relevant special equipment for maturing, climatic smoking or even high-temperature baking and cooling of cooked products.

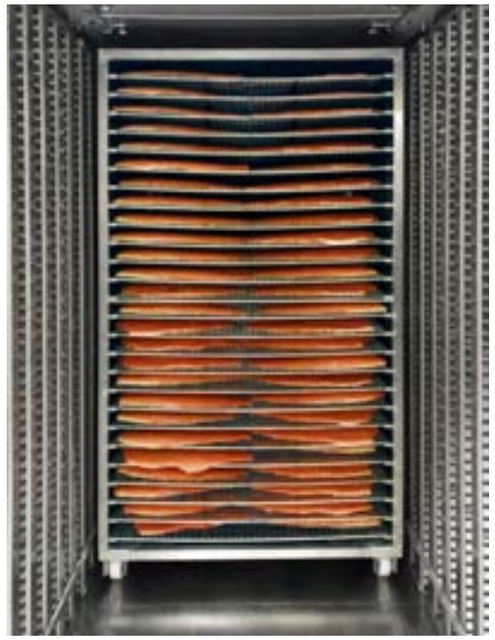
Of course, fully-automated CIP cleaning is also integrated. Various equipment options ensure that you can configure your system precisely to meet your specific requirements.

AVAILABLE SPECIAL EQUIPMENT
(Details are available on our website)

- Viewing window with lighting
- Transit version (tunnel)
- REICH RecyclingSmokeCooler (RSC)
- Air conditioning package
- Intensive cooling
- Heavy-duty floor / special floor
- Lifting doors
- CIP cleaning with pressure boosting









SMOKEGENERATORS

THE RIGHT CHOICE FOR ANY TASTE











REICH smoke generator systems are the result of many years of development work. Devices for different processes and of different sizes are available to match your individual requirements.

All of the smoke generators shown here are perfectly configured to work with AIRMASTER® systems and have safety devices that use the latest state-of-the-art technology. Innovative solutions in multiple details offer true added value.

REICH STEAMSMOKER

are powerful industrial steam smoke generators that generate smoke by smouldering wood chips with the help of a superheated mixture of steam and air. Thanks to the strong smoke production and high moisture level, smoking processes can be carried out quickly with high yields. The patented, automatic cleaning system of the SteamSmoker is unique, and reduces the manual work required significantly, compared to commonly available systems. These smoke generators are also suitable for large industrial systems.



REICH FRICTIONSMOKER

are friction smoke generators that generate smoke by pressing a wooden stick against a rotating friction wheel. This creates a pleasant, mild smoke with good colouration properties and other advantages. They are operated using the environmentally-friendly CircoSystem. The pneumatic press system patented for REICH in 1980 is considered the model for many smoke generators today. Other patents such as one for the stainless steel friction wheel and another one for the automatic wood revolver magazine are evidence of the REICH's force of innovation.



REICH MAXXSMOKER

are powerful smouldering smoke generators that generate smoke by smouldering dry wood chips. They stand out for the powerful, smoky aroma they create. Thanks to the high smoke density that can be achieved with these smoke generators, smoking times are very short and gentle on products. The automatic cleaning system of the MaxxSmoker, in combination with the preventative safety system with extinguishing function and chip removal allows for fully-automated operation.



REICH NATURALSMOKER

are smouldering smoke generators for moist wooden sawdust. They stand out for the traditional, natural smoky aroma they create. They are very well suited for adding other aromatic smoke substances, such as juniper berries or coniferous woods. They are operated using the environmentally-friendly REICH CircoSystem. Optional CIP cleaning allows for low-maintenance operation.



REICH BLUESMOKER

use specialised nozzles to generate an aerosol of liquid smoke condensate. They are an interesting alternative to classic smoke generators and achieve similar results in terms of aroma and colour. The condensate is produced by smoke from natural hard woods and cleaned of any undesirable substances. This ensures environmentally-friendly operation and a clean production. The process is fully automatic and precisely regulated by the system controller to ensure standardised results.



AIRMASTER® BKQ AIRJET

High-temperature cross-flow universal system
with horizontal airflow up to +300 °C



HORIZONTAL
CROSSFLOW

HIGH TEMPERATURE SPECIALIST

The AIRMASTER® BKQ AIRJET is a high-performance system for cooking, steaming, boiling, baking and roasting for process temperatures up to +300 °C. It works based on the unique REICH cross-flow principle, with horizontal, alternating airflow. This ensures the highest possible performance and short process times, with optimal uniformity and product quality.

This system was specially developed for products in closed trays, on sheets or on grates. Thanks to its high air circulation and heating capacity, it can deliver production capacities far above normal quantities.

The large variety of available processes makes this system an optimal, first-class alternative to combination steamers, however, in an industrial scale. BKQ systems are available as single or dual trolley systems.

In terms of uniformity and effectiveness, the AIRMASTER® BKQ AIRJET sets new standards for thermal treatment of lying products in the high-temperature range. The AIRMASTER® BKQ AIRJET impresses, for instance, for manufacturing baked meatloaf with a uniform colour, crust and consistent core temperature. Another key discipline in high-temperature cooking is manufacturing baked ham and crispy roasts. Producing a crispy crust with a uniform colour is a breeze.

ADVANTAGES OF THE AIRMASTER® BKQ

- Up to +300 °C process temperature
- Horizontal airflow, optimal for lying products and products in trays or on sheets
- Alternating blowing and suctioning of air
- Works without a complex twisting mechanism
- Up to 120 % more capacity
- Industrial alternative to combination steamers
- Independent of any specific level position on the trolley
- Highest possible uniformity
- Gentle product treatment
- Maximum yield of final products
- Fastest available amortisation of your investment
- PLUS all of the other advantages of the REICH AIRMASTER® UK series







AIRMASTER® KK and IKK

Cooking and intensive cooling system with vertical airflow



FULL STEAM AHEAD IN COOLING

Systems of the REICH AIRMASTER® KK series are designed for boiling and cooking with steam. They work using vertical airflow and are a great choice for hanging and lying products. KK systems are available in any size from 1 to 16 trolleys in single-row and 2 to 24 trolleys in dual-row entrance.

Potential applications go beyond just boiling and cooking. For instance, the AIRMASTER® KK can be equipped with a cooling shower to directly cool down cooked foods. The ECO-Boost function guarantees quick cooling with minimal water consumption.

Systems of the AIRMASTER® IKK series are intensive cooling systems for fast, safe and economic cooling down of cooked products. Rapidly passing through critical temperature ranges significantly improves the shelf life and quality of products. The optional cooking function makes the system even more versatile to use. AIRMASTER® IKK systems work with vertical airflow and are a very good choice for hanging products, as well as for lying products with the right loading.

IKK intensive cooling systems are available in any size from 1 to 16 trolleys in single-row and 2 to 24 trolleys in dual-row entrance.

ADVANTAGES OF THE AIRMASTER® KK AND IKK

- Energy-efficient, thanks to intelligent processes
- Highest cooling performance and efficiency
- Turbulent air circulation to avoid cold and hot spots, even with densely loaded products
- Maximum yield and shelf life for the final product
- Excellent product quality and microbiology
- Water-saving cooling shower with REICH ECO-Boost
- IKK optionally available with low pressure steam cooking function
- High loading capacity
- PLUS all of the other advantages of the REICH AIRMASTER® UK series







AIRMASTER® CLIMASTAR

Climatic maturing systems

MATURING TECHNOLOGY IN PERFECTION

Climatic maturing units place the highest demands on the professional expertise of engineers and technologists. Manufacturing raw sausage, raw ham and other cured and air-dried products, demands exact, individual coordination of the performance parameters and geometry of the system to the requirements of the products and facilities. Precise results, intelligent and resource-saving processes and optimal product handling are the main objectives.

The core of every AIRMASTER® ClimaStar maturing system is the central air handling unit. There, the air fed back from the treatment room is conditioned, meaning it is cooled, dehumidified, humidified and heated as necessary.

Fresh air is drawn in from the outside depending on the treatment process, or circulation mode is used to work regardless of the weather conditions. Systems from REICH are equipped with large air coolers for quick and efficient dehumidification.

The conditioned air is fed into the treatment room through a central fan via injection ducts. A programmable air exchange flap system ensures that the airflow can move over each row of trolleys in sequence to ensure uniform results.

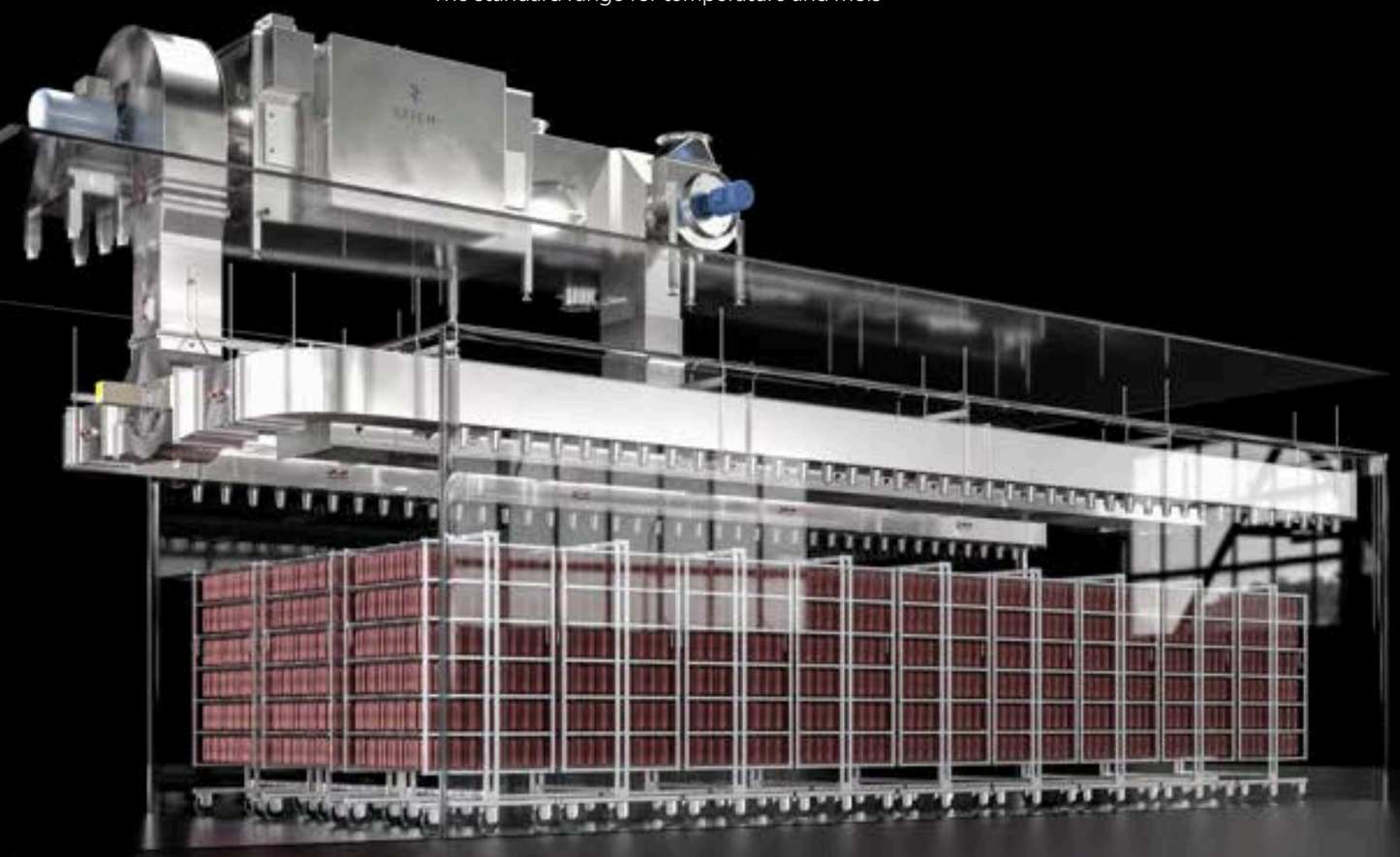
The intelligent climate controls on AIRMASTER® maturing systems ensure precise, homogeneous and energy-efficient drying and maturing. The continuously adjustable air circulation system is controlled via the product's water release, preventing formation of a dry edge on valuable goods, for instance.

In combination with the REICH ECOMIZER, a modern fresh air enthalpy system, product drying can be optimised via the amount of suctioned fresh air. A sensor continuously measures the climatic data for the outside air and transmits this information to the controller. If the outside air conditions are appropriate, the cooling is used only to control the temperature of the circulating air and not for drying.

Because of this, the REICH ECOMIZER offers high potential energy savings. AIRMASTER® ClimaStar systems are available for any desired number of trolleys.

AIRMASTER® KKRI ClimaStar PRE-MATURING, DRYING, COLD SMOKING

KKRI series climatic pre-maturing systems are designed for all pre-maturing, drying and cold smoking processes for raw sausage and raw ham, as well as semi-dry products. Other applications include air drying and cold smoking of specialised meats, such as biltong and beef jerky, as well as fish or vegetarian products.
The standard range for temperature and moisture is between +16 °C to +28 °C and 65 % to 95 % relative humidity. For product groups like summer sausages and thin caliber raw sausages, higher temperature ranges up to +45 °C can also be achieved. The air flows over the products from the bottom to the top.



AIRMASTER® CLIMASTAR

Climatic maturing systems

AIRMASTER® KRAI ClimaStar
PRE-MATURING, DRYING

KRAI series climatic pre-maturing systems are designed for all maturing, drying and post-maturing processes for raw sausage and raw ham, as well as semi-dry products. Other applications include air drying of specialised meat products like biltong and beef jerky as well as fish or vegetarian products. The standard range for temperature and moisture is between +16 °C to +28 °C and 65 % to 95 % relative humidity. For product groups like thin caliber raw sausages, higher temperature ranges up to +45 °C can also be achieved.

The air flows over the products from the bottom to the top.

ADVANTAGES OF THE AIRMASTER® CLIMASTAR

- Exact treatment that is gentle on products thanks to precise climate control
- Energy-efficient, thanks to intelligent processes and fresh air enthalpy system REICH ECOMIZER
- Independent of weather conditions thanks to circulating air conditioning
- Uniform results thanks to programmable air exchange flap system
- Continuous speed control for fans
- High airflow for fast processes
- Complete unit and air duct system made of stainless steel 1.4301 (AISI 304)
- Fully-automated CIP cleaning
- KKRI can be combined with all REICH smoke generator systems

AIRMASTER® KNRI ClimaStar
POST-MATURING, DRYING, STORING

KNRI series climatic post-maturing systems are designed for the post-maturing, drying and storage of raw sausage and raw ham, as well as semi-dry products.

The standard range for temperature and moisture are between +10 °C to +18 °C and 65 % to 90 % relative humidity.

The air flows over the products from the top to the bottom. The combination with the opposite direction of airflow over the products in the pre-maturing system (KKRI or KRAI) creates a perfectly uniform final product.

KNRI systems are configurable for trolley heights of up to 6 meters.



AIRMASTER® KKRI-DK CLIMASTAR

Climatic cold smoke maturing system with double-channel technology

COMBINED SYSTEM FOR THE HIGHEST PRECISION AND SPEED

KKRI-DK series climatic cold smoke maturing systems work with a unique air guidance system: During maturing and drying, products are alternatingly treated from the bottom to the top with vertical air injection and then from the top to the bottom with horizontal air injection. Reversing the drying direction and optimally flooding the trolleys ensures targeted product manufacturing. Additionally, the double-channel technology allows short process times, products with minimal standard deviations and therefore maximum yield in the entire treatment room.

ADVANTAGES OF THE AIRMASTER® KKRI-DK CLIMASTAR

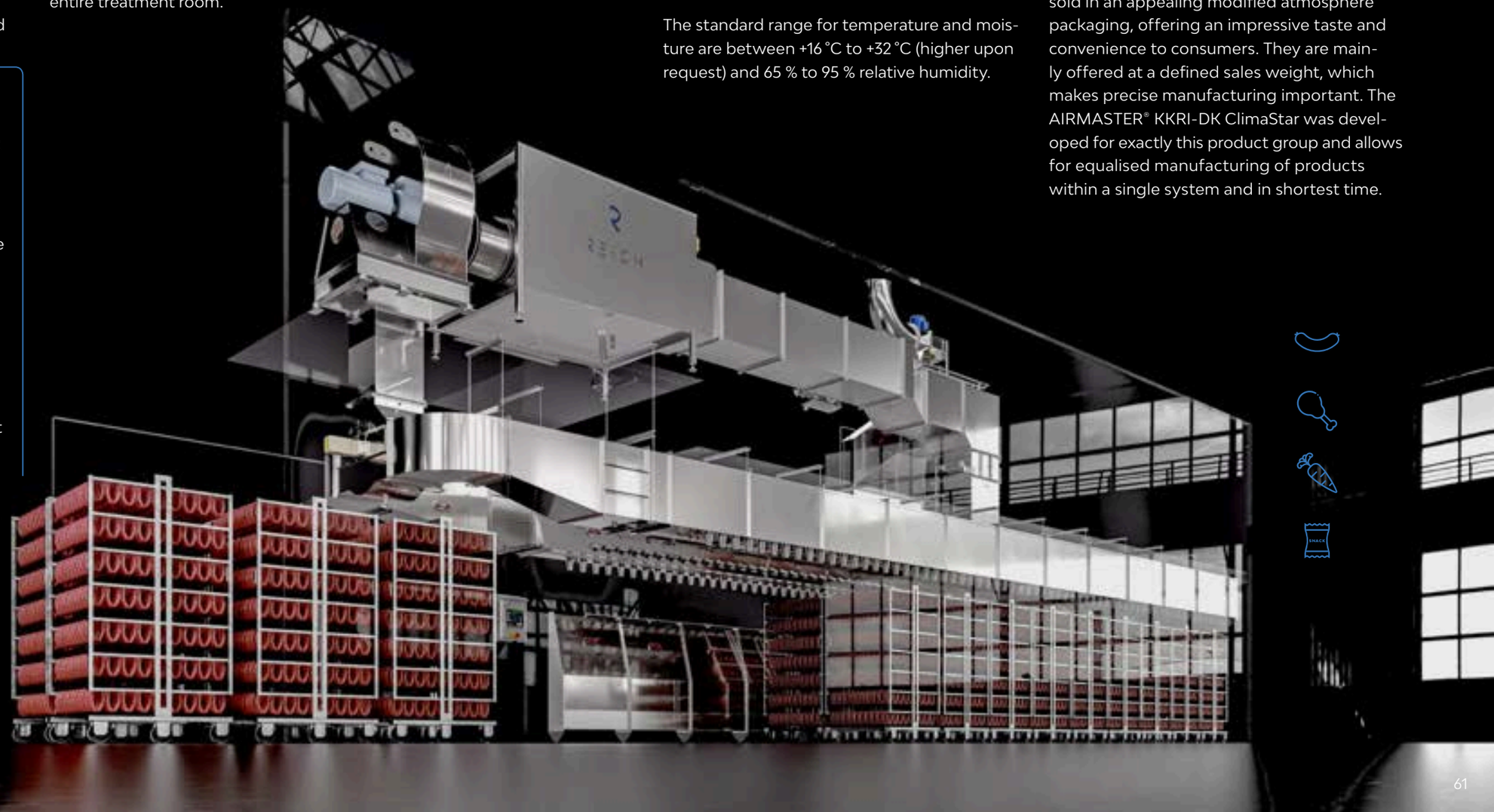
- Double-channel technology
- Vertical and horizontal air injection make it possible to combine both drying directions in one system, an guarantee targeted production
- High air circulation and fresh air performance in combination with a reversal of the flow direction in the trolleys result in minimal standard deviations with maximum yield throughout the entire treament room and short process times.
- Ideal for thin caliber raw sausage in slim casings and equalised products
- PLUS all of the other advantages of the REICH AIRMASTER® ClimaStar series

The uniform maturing and drying of products is reflected not only in the uniform weight loss, but also means that the shelf life can be adjusted more precisely and ensures homogeneous maturing aroma and product quality.

The standard range for temperature and moisture are between +16 °C to +32 °C (higher upon request) and 65 % to 95 % relative humidity.

THE SPECIALIST FOR THIN CALIBER RAW SAUSAGES

Consumers are increasingly turning to thin caliber raw sausages. This snack product is a popular choice for leisure activities and stands out for its many advantages. The snacks do not require refrigeration and are usually sold in an appealing modified atmosphere packaging, offering an impressive taste and convenience to consumers. They are mainly offered at a defined sales weight, which makes precise manufacturing important. The AIRMASTER® KKRI-DK ClimaStar was developed for exactly this product group and allows for equalised manufacturing of products within a single system and in shortest time.

























AIRMASTER® ATA CLIMASTAR

Thawing systems

AIRMASTER® ATA CLIMASTAR THAWING, STORING

ATA series thawing systems stand out for their economical function, which is gentle on products. They are designed for thawing packaged or open frozen products.

The thawing process is based on the physics principle of heat of crystallisation. By generating a high level of humidity inside the room, moisture condenses on the surface of the frozen products and freezes there.

The phase change from liquid water to solid ice releases heat (the heat of crystallisation), which warms the product. After a thin layer of ice has formed on the surface of the product, heat is fed into the treatment room, causing the ice crystals to thaw again.

A specific cycle, consisting of humidification, heating and a resting phase is repeated until the desired core temperature is reached in the product.

The surface temperature remains in a hygienically and bacteriologically safe, low range during the entire process, so as not to negatively influence product quality. In intelligent automatic mode, it is only necessary to enter a few values.

The system operator only needs to enter a starting value for room temperature and the maximum product surface temperature, as well as the core temperature to be reached. Then the two temperature sensors are placed in the product so that the surface and core temperature are recorded and the process can be started.

ADVANTAGES OF THE AIRMASTER® ATA CLIMASTAR

- Fast, reliable thawing with optimal product quality and hygiene
- Least possible weight loss
- Extremely energy-saving operation thanks to innovative, intelligent process control
- Highly efficient, economical and gentle on products
- Complete unit and air duct system made of stainless steel 1.4301 (AISI 304)
- Fully-automated CIP cleaning



Cooking vessels

Cooking made easy



AS INDIVIDUAL AS YOUR NEEDS

All REICH cooking vessels are build precisely to your requirements. Just like all products from REICH, they are manufactured to the highest standards for quality and lifetime.

Vessels can be equipped with electric heating, steam heating, gas or oil burner heating. They are available in every size from 150 litres to 2000 litres, as well as in a foot or base mounted design.

To meet particularly high requirements for sealing and hygiene, we have developed the HERMETIC design, a specialised version for industrial applications. The entire housing is sealed on all sides.

Products boiling over, rough conditions and high-pressure cleaning are no problem for this design. It guarantees highest hygiene standards. HERMETIC cooking vessels are designed only for heating with steam, but they are available in all sizes and designs.

Cooking processes are managed via a modern, intuitive controller.

AVAILABLE SPECIAL EQUIPMENT

- Hygienic HERMETIC design
- Foot or base mounted design
- Core sensor automation
- Second water inlet (hot + cold)
- Vessel float / base sieve
- Pneumatic cover opening
- Insert basket

ADVANTAGES OF REICH COOKING VESSELS

- No extra charge for customised dimensions
- High-quality, stable construction made of solid stainless steel (exterior 1.4301 (AISI 304), interior 1.4571 (AISI 316)
- Fully thermally insulated
- Optimal heating performance and heat distribution
- Insulated cover with silicone seal, pressure compensation and safety handles
- Optionally available in hygienic design HERMETIC
- Special custom design on request

GLOBALSALES



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