

ARCTICjet® IK



OPTIMIZE COOKING AND COOLING

Particularly rapid cooling processes are the hallmark of Schröter's ARCTICjet intensive cooling systems. As a result, these state-of-the-art systems from Borgholzhausen in East Westphalia have become indispensable to many producers in the meat-processing industry. With the ability to cook built right in, the tried and tested series now offers producers additional benefits.

Many clients already use this worthwhile option, particularly when faced with long cooking and cooling times. Classic areas of application include ham in forms and modules as well as sliced products. Which is why the renowned Bell AG relies on this combination of cooking and cooling. At its production facility in Basel, Switzerland's largest meat processor uses six ARCTICjet intensive cooling systems with integrated cooking function. The long-established company initially cooks ham in forms to the core or based on the F-value, then subsequently cools it right down to the desired core temperature. An added benefit: The extremely heavy cooking modules no longer need to be transported to the cooling system. Furthermore, since Bell uses ammonia as its cooling agent, the cooling process is faster than when using other types of cooling media.

EFFICIENT PRODUCTION

Thanks to this ingenious concept, long cooking and cooling programs can also be run automatically and overnight. Employees can then continue processing or package the products the next morning, eliminating dead time. During the day, Bell produces smaller products like Chipolatas, fried sausages, and boiled sausages. Doing so ensures that the systems' capacity utilization rate remains ideal. Incidentally, companies that already rely on the innovative engineering firm's technology and currently use the ARCTICjet series can also breathe easy, because they can easily respond to changes in demand by upgrading existing intensive cooling systems with the full-fledged cooking function at any time.



QUICKLY REACH THE IDEAL TEMPERATURE

Schröter develops systems for each processing stage which are used to refine high-quality food products. To quickly cool heat-treated products in a controlled manner, Schröter offers intensive and shower cooling systems. Using these systems avoids unnecessary weight loss and extends the shelf life of the products.

EXTREMELY HIGH AIR FLOW RATE

Schröter's ARCTICjet systems are used everywhere that products need to be cooled down: From precooling using the shower cooling process to systematically reaching a low core temperature using the intensive cooling process. It goes without saying that Schröter designs its systems with specific customer needs in mind. Depending on the client's products and technical prerequisites, either cold water, ice water, brine, or cold air is used as a cooling agent. And the packaging process can be carried out directly afterwards, depending on the product. All systems in the ARCTICjet series which use cold air are characterized by their extremely high flow rate and the significant cooling effect which results.

TWICE AS SAFE

Not only do Schröter's ARCTICjet systems mean shorter production times and improved product shelf life, they also guarantee absolute hygiene: By intensively cooling the products, they pass through the critical temperature range in which bacteria grows as quickly as possible. The method used to clean the cooling system is also an important factor in ensuring the production process remains safe – Schröter's cooling systems use a steam sanitation device in connection with a stainless steel cleaning system. Which makes the cooling process twice as safe.



THERMICjet®/ARCTICjet® – COOKING AND INTENSIVE COOLING SYSTEMS: MEASUREMENTS AND CONNECTED LOAD VALUES

SINGLE-ROW SYSTEMS							
MEASUREMENTS	UNIT	1-Wagon	2-Wagon	3-Wagon	4-Wagon	5-Wagon	6-Wagon
Length A	mm	1260	2360	3460	4560	5660	6760
Width B (Cooking System)	mm	1400	1400	1400	1400	1400	1400
Width B (Cooling System)	mm	1500	1500	1500	1500	1500	1500
Height H (Cooking System)	mm	2550	2550	2550	2550	2550	2550
Height H (Cooling System)	mm	3020	3020	3020	3020	3020	3020
Ceiling Height (Cooking System)	mm	3100	3100	3100	3100	3100	3100
Ceiling Height (Cooling System)	mm	3700	3700	3700	3700	3700	3700
CONNECTED LOAD VALUES: COOKING SYSTEM							
Electricity	kW	1,5	1,5	1,5	3	3	3
Cooking: Steam	kg/h	50	100	150	175	200	250
Shower: Cold Water	l/min	18	36	54	72	90	108
Weight	kg	700	900	1100	1400	1700	2000
CONNECTED LOAD VALUES: COOLING SYSTEM							
Electricity	kW	2,5	5	7,5	10	12,5	15
Shower: Cold Water	l/min	18	36	54	72	90	108
Cooling *	kW	15	30	45	60	75	90
Weight	kg	950	1400	1850	2400	2950	3500

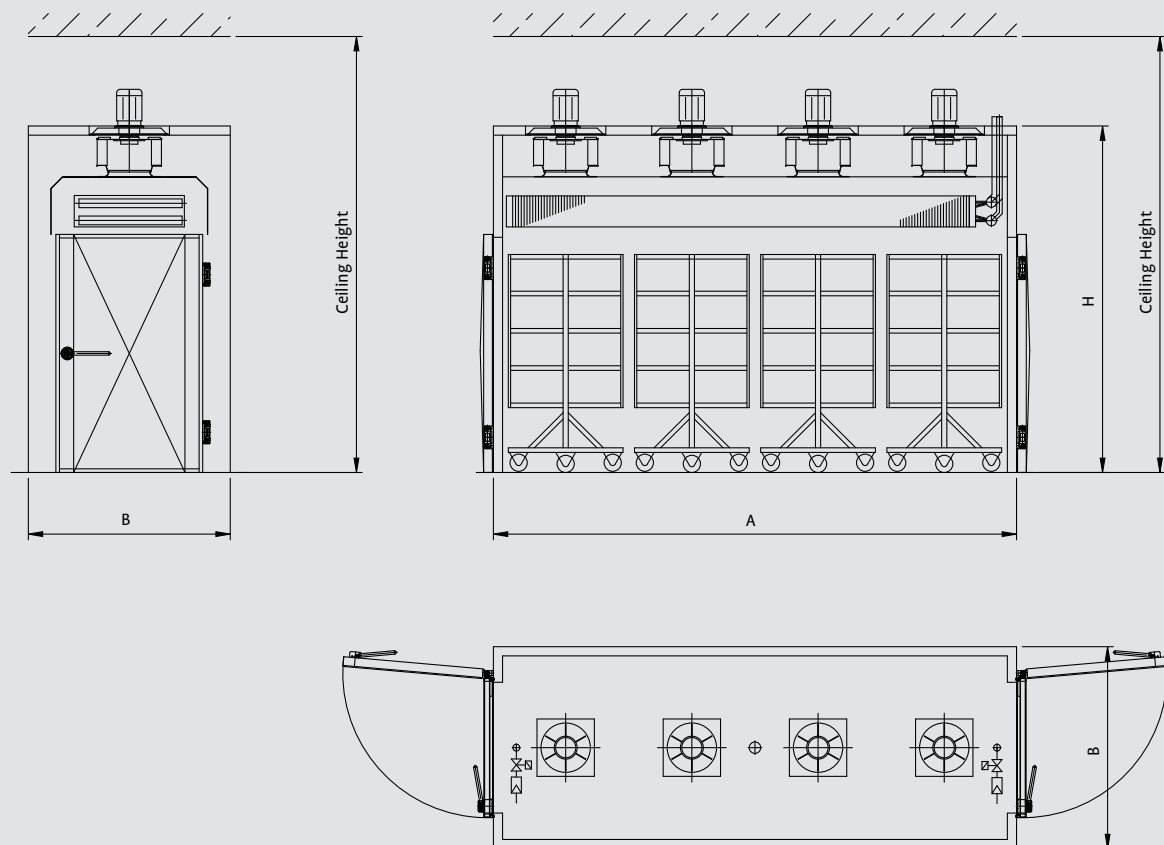
DOUBLE-ROW SYSTEMS					
MEASUREMENTS	UNIT	4-Wagon	6-Wagon	8-Wagon	10-Wagon
Length A	mm	2360	3460	4560	5660
Width B (Cooking System)	mm	2860	2860	2860	2860
Width B (Cooling System)	mm	2860	2860	2860	2860
Height H (Cooking System)	mm	2550	2550	2550	2550
Height H (Cooling System)	mm	3020	3020	3020	3020
Ceiling Height (Cooking System)	mm	3100	3100	3100	3100
Ceiling Height (Cooling System)	mm	3700	3700	3700	3700
CONNECTED LOAD VALUES: COOKING SYSTEM					
Electricity	kW	1.5	3	4.5	4.5
Cooking: Steam	kg/h	175	250	300	350
Shower: Cold Water	l/min	72	108	144	180
Weight	kg	1400	2000	2500	3000
CONNECTED LOAD VALUES: COOLING SYSTEM					
Electricity	kW	10	15	20	25
Shower: Cold Water	l/min	72	108	144	180
Cooling *	kW	60	90	120	150
Weight	kg	2400	3500	4400	5000

Measurements apply to a wagon size of 1.0 m x 1.0 m x 2.0 m

*Cooling power is dependant on the process. Values apply to a room temperature of approx. 10 °C.

TECHNICAL DETAILS

DIMENSIONAL SKETCH





SCHRÖTER'S COMPACT CONCEPT: **ARCTICjet® IK**

STRUCTURAL CHARACTERISTICS

- > Chassis and all relevant components are built to be structurally gas and steam tight
- > All components, such as insulation, motors, fans, and ducts, have the ideal dimensions

CUSTOMER BENEFITS

- > Speed
- > Homogeneity
- > Energy savings
- > Minimal weight loss
- > Quickly reach target value + accurately maintain target value
- > Consistent results
- > Accurately repeat a predefined result
- > Ideal temperature and humidity
- > Products are handled in an absolutely gentle and uniform manner



SCHRÖTER TECHNOLOGIE GMBH & CO. KG | BAHNHOFSTRASSE 86 | D-33829 BORGHOLZHAUSEN | GERMANY



Tel. +49 (0) 54 25.95 00
Fax +49 (0) 54 25.18 28

info@schroeter-technologie.de
www.schroeter-technologie.de