

### **Cooling Solutions for the Food and Packaging Industry**

Reliable. Global. Versatile.



### **KKT CHILLERS**

**INNOVATION IS OUR STANDARD.** 

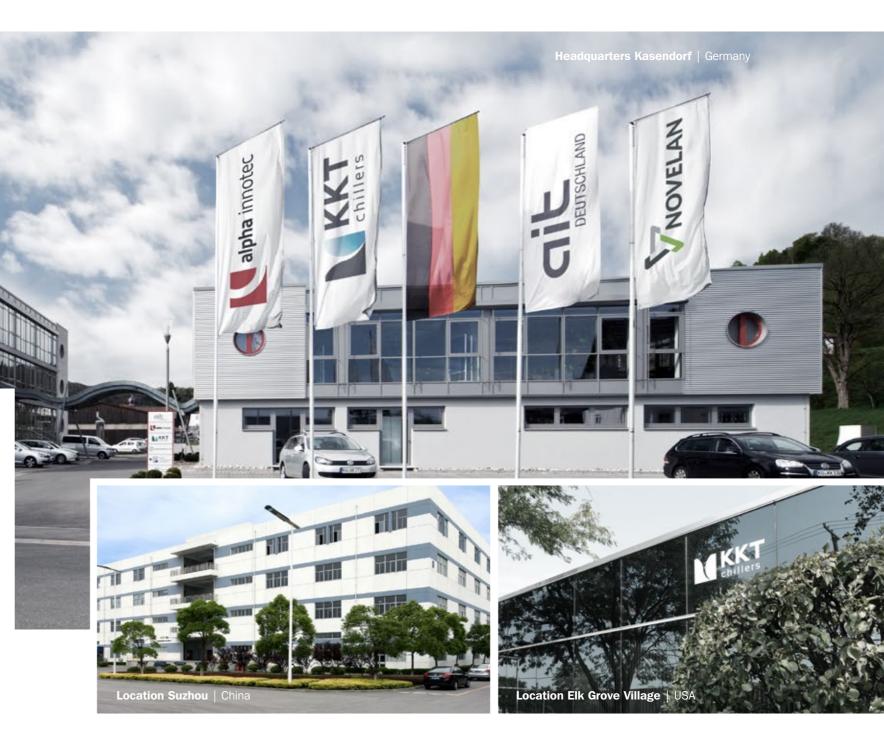
### **The Brand**

The chiller and heat pump solutions of KKT chillers are always customized to fit your industrial application. This way you can be sure that your facilities are cooled reliably and energy-efficiently. Trust those who know: The KKT chillers team has decades of experience in thermodynamic processes and understands what users need. The resulting product portfolio ranges from serial production-oriented devices with a cooling capacity of 1 to 200 kW to customized products.

A high degree of innovation, customer-focussed approach, and development and production 'Made in Germany' – these factors are the basis of the global success in the cooling sector.

The in-house Technology Center is at the cutting-edge of development laboratories and test institutes. The state of the art centre amalgamates the latest inspection and testing standards.

KKT chillers has long become a valueable global player in the chiller market, thanks to the sites in Germany, USA and China as well as the global service network.



KKT chillers - a brand of ait-deutschland GmbH.



### **FOOD & PACKAGING**

**COOLING OF FORMING TOOLS, ROLLERS, EXTRUDERS, ACTUATORS AND COOLING CHANNELS.** 

# **ENROBING MACHINES FORMING TOOLS** EXTRUDER FILM LINES **BLOW MOLDING MACHINES ROLLERS** COOLING CHANNELS ACTUATORS COOLING

#### **Cool solutions for hot applications**

Renowned companies in the food and packaging industries have trusted the expertise of KKT chillers for decades. KKT chillers develops custom-fit cooling solutions for machine components together with leading manufacturers of, for instance, stretch blow molders, blown film lines and enrobing machines in the food and packaging industry.

#### Include the expertise of KKT chillers

When it comes to highly complex development projects, it makes great sense to consider the issue of process and component cooling early on. To this end, KKT chillers offers "Resident Engineering": the KKT chillers engineers will support your development process from the outset, providing you with the extensive knowledge in matters of cooling technology.

#### Reliability

Thanks to their individual alignment with your specifications, the chillers of KKT chillers are particularly precise and reliable. On top of that, the team of engineers and technicians at KKT chillers ensures top quality - from the project launch to the inspection of chillers at the in-house test facilities and the 24/7 customer support.

#### **Basic types and options**

KKT chillers provides you with the cooling solution you want. All chiller model series are modular systems that can easily be adapted to your requirements and specifications thanks to a wide range of options and equipment.

### **Digital data management**

chiller can answer these questions at the push of a button - because it digitally records all the relevant process and control variables. This means that data can be called up via many different interface protocols, including PROFIBUS, Modbus, DeviceNet, CANopen, PROFINET or viewed via a web server. This setup also facilitates reliable and cost-effective remote facility maintenance.



# What is the water temperature right now? And the water pressure? What is the filling level of the tank? Your







# **PET BOTTLE PRODUCTION**

#### **BLOW MOLD COOLING.**

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Preforms (bottle blanks) pass through the modular linear oven, in which infrared radiation heats them up to their ideal processing temperature. Next, they move on to the blow wheel where they are inserted into blow molds and formed into bottles via pressurized air. In this process, KKT chillers cools the blow molds.



### **KKT chillers offers** the custom-fit solution for your requirements:

You also have to watch out for any pressure loss in your facility system?

KKT chillers offers you a pump system specifically aligned with your specifications. The pump output is calculated depending on the pressure loss. You also have a choice of three pump sizes.

#### Your facility is set up outside of Europe?

KKT chillers applies components by renowned manufacturers and can produce the exact voltage and frequency you need.

#### You would like to forego the red tape involved in the shipping of dangerous goods?

Thanks to the high-efficiency refrigerant R410A and a micro channel as a standard, KKT chillers has managed to reduce the coolant filling level by 50%. Consequently, chillers of up to 100 kW cooling output do not have to be labeled specifically.



### Your machine pool consists of several consumers that are connected by long stretches of pipes?

## **PET BOTTLE PRODUCTION**

**BLOW MOLD COOLING.** 

#### A simple start-up is one of your priorities?

The magic words are "plug and play". All electrical specifications are already preset at our plant.

#### Energy efficiency is an inherent part of your corporate philosophy?

Ask for the optional energy measuring and energy efficiency solutions such as free cooling. We are also able to integrate your existing ice storage systems.

#### You are driven by innovation?

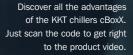
KKT chillers apply state-of-the-art and highly innovative technologies, such as a micro channel as a condenser, an electronic expansion valve and the high-efficiency refrigerant R410A.

#### You have only minimal space left in your machine park?

KKT chillers offers maximum cooling performance with minimum space requirements.









### **COMPACT-LINE**

COOLING CAPACITY 30 - 200 KW

### **FOIL PRODUCTION**

#### **COOLING OF ROLLERS AND EXTRUDERS.**

In the multi-layer blown film line, fitted with a patented blow head and a double-deck cooling ring, molten plastic granulate is blown into a film tube. A cooling flow of air at and inside the film tube cools the product while retaining the required shape until passing along ten meters vertically, it is rerouted and folded. The mono and composite films are winded into large coils by rollers and then transferred to the packaging industry for further processing. In this process, KKT chillers cools the rollers, the extruders and the air stream.

### **KKT chillers offers** the custom-fit solution for your requirements:

Your machine pool consists of several consumers that are connected by long stretches of pipes? You also have to watch out for different pressure levels and volume streams?

KKT chillers offers you a pump system specifically aligned with your specifications, such as a solution with an evaporator and consumer pump.

#### Your consumers require certain temperature levels?

KKT chillers masters this challenge in all chiller series thanks to different power management variants, ensuring a temperature accuracy of  $\pm$  0,5 K.

#### You want to prevent any contamination of your water system from the outset?

At the start-up the optional "strainer monitoring" controls your system with maximum diligence.

#### Due to your specific requirements, the chiller needs to be set up outdoors?

Whether it's permafrost in Siberia, tropical conditions in Vietnam or extreme heat in Oman – KKT chillers offers you the best technical solution for any kind of climate.



# **FOIL PRODUCTION**

**COOLING OF ROLLERS AND EXTRUDERS.** 

#### You don't have digital data management to operate your chiller outdoors?

Select the "remote tableau" option and you can comfortably operate your chillers from inside your production facility.

#### Your facility is set up outside of Europe?

KKT chillers applies components by renowned manufacturers and can produce the exact voltage and frequency you need.



### **COMPACT-LINE**

#### COOLING CAPACITY 30 - 200 KW



KKT

Discover all the advantages of the KKT chillers cBoxX. Just scan the code. compact-line.de

# **CONFECTIONARY ENROBING**

#### **COOLING OF THE AIR STREAM IN THE COOLING CHANNEL.**

Enrobing machines add the final touches to chocolate bars, wafers, pralines and baked goods with chocolate, compound or caramel. Straight from the oven, cakes or cookies are coated with chocolate, for instance, and then moved through the cooling tunnel for cooling. This can be done via, among others, convection cooling and base direct cooling with high cooling speeds. Another option is the radiation cooling of chocolate coatings and fragile products. In this process, KKT chillers cools the air stream in the cooling channel.



### **ARCTIC**

COOLING CAPACITY 200 - 1.000 KW



### **KKT chillers offers** the custom-fit solution for your requirements:

You require cooling water temperatures of up to -25°C?

Use an individual chiller solution with media ideal for your needs in the different performance variants.

#### You want to use the chiller's exhaust heat for heating?

Choose a cooling cycle with an air-cooled condenser. Your system works autonomously. Hence, no additional cooling source is required – and the exhaust heat is emitted into the ambient air.

#### Your production facility is already equipped with a cooling water network?

Choose a cooling cycle with a water-cooled condenser. The exhaust heat is emitted into the existing cooling water network so that your system can be operated independent of the ambient temperature.

#### You prefer a water-cooled model, but don't have a cooling water network?

In this case, choose the cooling solution with an additional glycol cooler.

#### Your facility is set up outside of Europe?

KKT chillers applies components by renowned manufacturers and can produce the exact voltage and frequency you need.





## **VERSATILE APPLICATIONS**

WHAT CAN KKT CHILLERS COOL FOR YOU?





## **AFTER SALES SERVICE**

**EXPERT SERVICE TECHNICIANS IN ACTION.** 

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### Service – around the clock.

No one can predict a system breakdown. But should it happen, KKT chillers' years of experience and well-structured service organization guarantee fast response and trouble-shooting.

Do you require help with one of your chillers? You can reach KKT chillers 365 days a year, 7 days a week, 24 hours a day.



### Service – around the world.

To ensure swift and reliable maintenance and repair services, KKT chillers runs a close-knit global service network, which is continuously optimized and expanded in keeping with your requirements and plant locations.

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Customer Support

For frequently updated contact information of the individual service locations, please see





For an overview of all our applications, please see

www.kkt-chillers.com/en/applications/



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