

WKT AND DVT SERIES WORKPIECE COOLERS



Ensuring quality
Speeding up production

WKT AND DVT SERIES

Workpiece coolers – in individual designs



OPERATIONAL RELIABILITY THROUGH EXPERIENCE AND SERVICE

Guarantee of safe installation and function through:

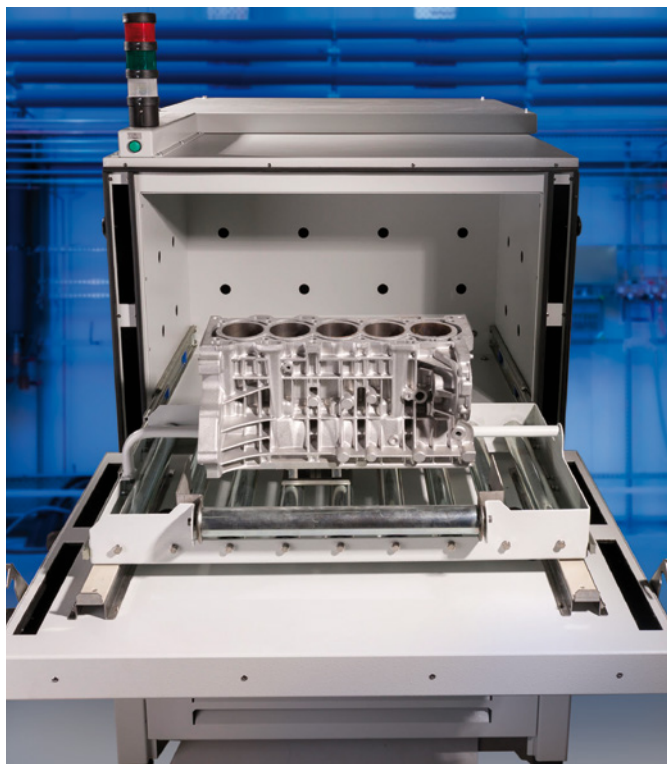
Guarantee of safe installation and function through:

- Efficient air nozzle configurations by optimising air volume, air speed and air flow depending on the workpiece
- Workpiece testing in our own test laboratory to determine the optimum configuration of your cooling tunnel
- On-site commissioning, servicing and maintenance
- Interdisciplinary collaboration with leading conveyor belt manufacturers

Our workpiece coolers are subjected to extensive function and performance tests.

Quality and service on principle

Our production and our products comply with the requirements of DIN ISO 9001 and DIN EN 378, the F Gas Regulation, the EC Machinery Directive and the applicable regulations of the German Association of Electrical Engineers (VDE) and accident prevention (UwV); this means that the coolers meet the required high quality standards. Our professional service includes consulting, project planning, commissioning, maintenance and on-site service as well as delivery of spare parts – and a hotline.



LT duotemp®
Kältetechnik in Perfektion

Our workpiece coolers are used wherever rapid, but workpiece-specific and dimensionally accurate, cooling is required after process-related heating. What can be achieved by using workpiece coolers:

- Shortening of throughput times on production lines
- Quality assurance due to precisely determinable temperature curves and partially variable cooling
- Gain in production space due to the elimination of cooling sections

Compact modular design, individual design, demand-oriented cooling course, high reliability

The design of the workpiece coolers is based on individual specifications, the availability of cooling media and the cooling requirements of the workpieces. This means that each workpiece cooler is perfectly integrated into the customer's production process.

The units feature a modular design that allows them to be modified in many different ways so that they can be adapted to a wide variety of installation scenarios. This enables space-saving solutions of reproducible high quality even for very specific tasks.

The WKT and DVT series offer a choice depending on the availability of the cooling media.

Planning reliability due to informative series of tests

Since the cooling time depends on the shape, material, surface and thickness of the workpieces, the cooling curves and thus the lengths of the cooling sections are determined in our testing facility.

In addition, we simulate an optimisation of the cooling process with different nozzle arrangements, air discharge velocity and cooling air temperature. The informative results guarantee cooling that is precisely matched to performance and duration with a high degree of economic efficiency.

The following parameters are required to determine the cooling capacity:

- Cycle time
- Workpiece weight and throughput per hour
- Workpiece material
- Workpiece intake/exit temperature
- Air leakage rate
- Recirculation system fan power

COOLER DESIGNS FOR YOUR SPECIFIC REQUIREMENTS



Product features

- High economic efficiency and additional availability by speeding up throughput times
- Significant time savings due to dry cooling of the workpieces within minutes
- Improved quality in further processing thanks to uniform, stress-free cooling
- Gain in production space as no need for conventional cooling sections
- Seamless integration into existing production lines thanks to the particularly variable and adaptable modular design
- Maximum operational safety due to proven, robust and reliable cooling system technology
- 5 years' warranty with a maintenance contract
- Our workpiece coolers comply with the statutory environmental regulations.

OUR WKT AND DVT SERIES

The water-cooled or air-cooled design is selected depending on the availability of the cooling media.

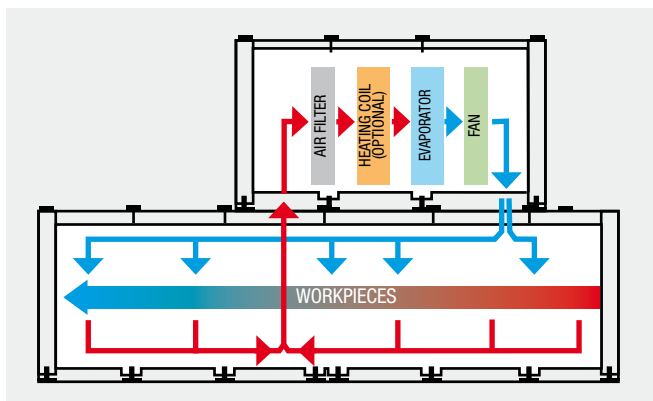
WKT SERIES

Cooling with cold water available on site

The WKT series requires a cooling or cold water network with a temperature level below the required workpiece temperature.

The cooling or cold water supplies a heat exchanger that is charged with air.

The recovered cooling air is blown onto the workpiece by means of adjustable nozzles.



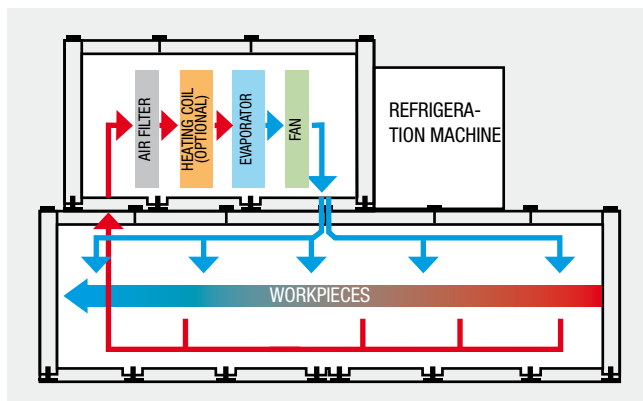
WKT series functional layout

DVT SERIES

Cooling with a traditional refrigeration circuit

In this case, an integrated active cooling circuit provides the necessary heat dissipation.

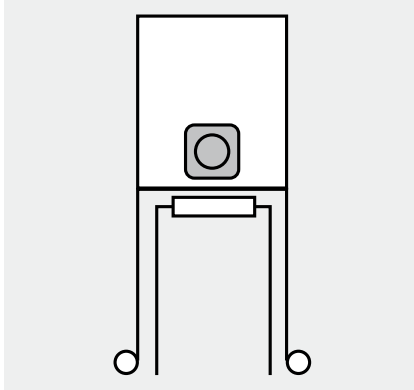
The advantages of this version are that almost any cooling temperature can be generated allowing a process that is largely independent of the ambient temperature.



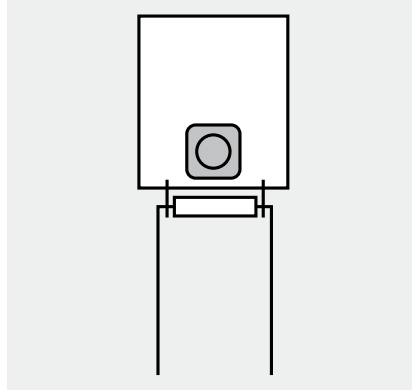
DVT series functional layout

EVERY SPECIAL REQUIREMENT CAN BE FULFILLED:

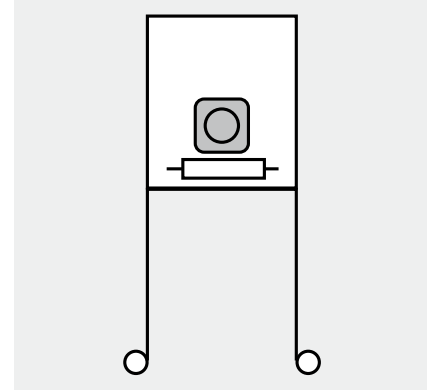
VARIANTS ...



Workpiece cooling unit with its own feet – can be installed above existing conveyor system



Workpiece cooling unit can be mounted on existing conveyor system



Workpiece cooling unit with sub-base – for insertion of the conveyor system

... OPTIONS AT A GLANCE

- Differential value control: workpiece temperature adjusted to room temperature
- Intelligent PLC controls and speed-controlled motors enable energy savings of up to 70% compared to conventional systems by adapting the cooling capacity to
 - the current workpiece temperature
 - the throughput workpiece quantities
- Non-contact temperature measurement of workpieces
- Adaptation to and integration into customer controls
- Inlet/outlet zones of the cooling system according to workpiece-specific requirements:
Air curtain for non-contact and dirt-free infeed/outfeed of workpieces or slatted curtain, brushes, contour plate, high-speed doors
- Standard air filtration class G3 with pocket filters
- Air filters in fine dust classes up to F9 and HEPA



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