



PERFECT **COOLING AND TEMPERATURE CONTROL.**  
Worldwide. **gwk**





## gwk. HIGH-TECH MADE IN MEINERZHAGEN.



Headquarters of gwk, Meinerzhagen

The fact that the gwk Gesellschaft Wärme Kältetechnik mbH company enjoys such a great reputation as a top expert and innovative specialist in high-quality temperature control and cooling technology is based on an abundance of experience that stretches back more than five decades.

Anyone in need of well-thought-out high-tech products ranging from cooling plants via temperature control systems to water treatment solutions will find gwk to be a system provider that manages the entire thermal process, generating individually tailored designs and also delivering engineering and all the necessary components. Also in the area of close-to-cavity temperature control for mould inserts and mould cleaning, gwk offers its customers intensive and individual support.

At present over 400 employees are engaged in producing complete process solutions for customers from the plastics, metal processing, food and chemicals industry on every continent.



Parent company technotrans SE, Sassenberg

The technotrans group of companies focuses successfully on applications involving liquid technology as its core competence. With 21 sites and about 1,250 employees, it has a presence in all major markets worldwide. For many years, technotrans has opened up new areas of application based on its core competences of cooling, temperature control, filtration as well as measuring and dosing technology. The strategy aims at a sustainable, result-oriented development.

IF YOU HAVE THE EXPERIENCE ...  
... you can make foresight into a way of life. **gwk**



### **gwk. PORTFOLIO.**

In addition to the wide range of serial products, gwk offers tailored, innovative solutions for every application. In its Meinerzhagen plant, which measures 20,500 m<sup>2</sup>, gwk develops and produces systems in a temperature range from to -40 °C to +400 °C according to the needs of the customer. This is where custom-built solutions from temperature control units via water chillers, heat recovery systems and water treatment up to complete systems are produced. On request also available in series.



### **gwk. PRODUCTION.**

Our modern production facilities not only develop and produce variants in a modular system, but also numerous customer- and process-specific individual solutions with significant vertical integration. A large number of patents and registered designs are evidence of the high level of innovation to be found among gwk's experienced engineers and technicians.



### **gwk. TRAINING.**

The consistent, systematic initial and further training of gwk employees is a key pillar in the company's long-term strategy. With around 40 training places for 18 different professions, gwk has one of the highest training quotas in machine engineering industry in Germany. Thus, more than half of the over 400-strong specialist workforce were trained at gwk.



# ACTIVE THROUGHOUT THE WORLD.

Know-how made in Germany. **gwk**

## gwk. USPs. AT A GLANCE.



### gwk. INTERNATIONAL.

With a total of 19 sales and service locations, gwk is very well established in Germany. In addition, the over 32 representative offices worldwide are further evidence of the company's international focus.

The worldwide sales organisation and the associated service activities around the globe are an expression of the company's continuing success.

The international positioning of gwk will be further expanded by 21 subsidiaries from the technotrans group.



### gwk. COMPETENT.

For more than 50 years, gwk has had superior expertise in cooling and temperature control.

gwk is at the helm of the entire thermal process, creating individual concepts and delivering engineering, components and system solutions at the highest level.

The great strengths of gwk include both consulting at every stage of development of production, as well as service before and after the commissioning of a plant. Whatever you may want, gwk makes it possible.



### gwk. HIGH-QUALITY.

The high quality of gwk systems and plants begins at the planning stage in close dialogue with the customer.



The expertise and rich wealth of experience among staff and the cutting edge production processes guarantee the unique technical standard of gwk products, reflected in numerous design details and in their long service life.

Naturally, gwk products meet worldwide standards and guidelines.





**OUR VISION.**  
WE ARE INTERNATIONAL  
MARKET LEADER,  
BY MEANS OF OUR RELIABLE  
INNOVATIVE STRENGTH WE COPE  
WITH CHALLENGES TOGETHER.  
**We are gwk.**

 Representative offices  
 Subsidiaries

 **gwk.**  
**SYSTEMATIC.**

Chillers and temperature control systems are an important element in the complex process chain as companies move towards optimum production.

However, the best results can only be achieved when all systems, devices and quality requirements are perfectly coordinated. This starts with thermal process evaluation.  
gwk offers solutions with interface capabilities from a single source to meet all of these requirements.

 **gwk.**  
**THOROUGH.**

A high level of vertical manufacturing enables gwk to build even the largest systems in house, down to the smallest detail.

Structural elements like supports and frames, as well as independently developed mechanical and electronic components are all produced, programmed and commissioned under one roof.  
This provides flexibility, leads to high levels of innovation and sustainable service for gwk customers.

 **gwk.**  
**INNOVATIVE.**

There is good reason why gwk is a technological market leader.  
gwk customers have always relied on the enormous innovative strength with which every challenge is met.

This cannot generally be achieved with standard solutions alone.  
gwk always develops its product solutions in close cooperation with the customer, thereby delivering tailor-made technologies for numerous sectors.



# THOROUGH IN TERMS OF **IN-HOUSE-MANUFACTURING.** Innovative in terms of development. **gwk**



gwk can confidently claim that it can truly take care of almost all the production processes necessary for the manufacture of its products itself.

gwk machinery and production systems achieve an unchallenged degree of vertical integration. This not only means that gwk is not dependent on delivery times, but also meets its own quality goals



Full welding production



Welding on special equipment



Tank welding



High-temperature vacuum bonding



Control cabinet assembly

and customer standards. The long-term experience in developing a wide range of production areas enable gwk to master differentiated and complex development requirements. gwk stands for solutions-

based, competitive competence that is appreciated by customers. Thus, worldwide standards are set in Meinerzhagen.

# PLASTICS. METAL. CHEMICALS. FOOD.

The business sectors we know well. **gwk**

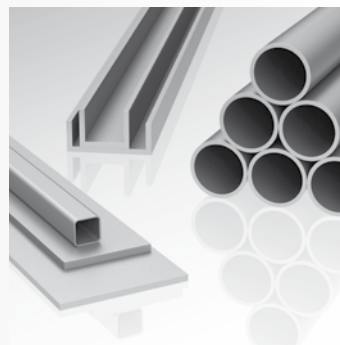
## PLASTICS INDUSTRY.



**Injection moulding | Extrusion | Compression moulding |  
Blow moulding | Film casting | Foaming | Laminating |  
Thermoforming | Rubber & Natural Rubber |**

In the plastic processing industry - as in many other sectors - gwk is the only complete provider of the entire process chain for cooling and temperature control. Based on detailed analyses, all potential for savings and optimisation are identified and implemented.

## METAL PROCESSING.



**Induction systems | Galvanic finishing systems |  
Emulsion systems | Presses | Welding machines |  
Hardening Furnaces**

The cooling systems for the metal industry are individually tailored to the requirements of the relevant production and process technology. As well as optimised production processes, gwk has a particular eye on energy efficiency.

**gwk.**  
**HIGH PERFORMANCE.**  
**INNOVATIVE.**  
**RELIABLE.**

For decades, gwk has been developing, designing and producing temperature control solutions and cooling systems for many sectors and branches of industry. These days it is not just one of the world's leading provider in this area, but also one of the most innovative. Our excellent references speak for themselves.

gwk designs unique system solutions for all cooling and temperature control processes, which have positive effects that go far beyond the optimised production processes: maximum energy efficiency and, in general, a considerable reduction in production costs.

If you are looking for expert advice, while also valuing every aspect of reliable round-the-clock service from day one, then you have to look no further than gwk.

## CHEMICALS AND PHARMACEUTICALS INDUSTRY.



**Evaporation | Distillation | Absorption | Extraction |  
Drying**

gwk develops and produces a large number of systems for numerous customers in the chemicals and pharmaceuticals industry that are tailored to specific needs and specifications. Naturally, it strictly complies with international standards and guidelines.

## FOOD INDUSTRY.



**Confectionery production | Drinks bottling |  
Food packaging**

Cooling and temperature control play a vital role in the food industry. gwk offers a broad range of highly efficient products from temperature control systems and central cooling plants to water treatment and heat recovery systems.














# INDIVIDUAL SOLUTIONS ARE OUR STANDARD.

Product portfolio at a glance. **gwk**

**gwk.**  
**CUSTOMER-SPECIFIC STANDARDS.**  
**NO CONTRADICTION.**

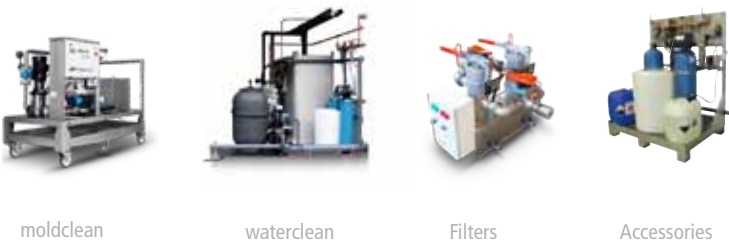
As a system provider, gwk always has the entire production process under control and plans perfectly tailored temperature control and cooling solutions for every production process. This means that highly customised solutions are produced for each customer in order to achieve optimum results, often contributing to new customer requirements. gwk uses the ever-increasing expertise to expand its product portfolio, enabling it to turn former individual solutions into a modular construction system. gwk's customer-specific standards are produced on this basis.

<b>gwk.</b> ECO-FRIENDLY PRODUCTION.		<b>gwk.</b> <b>MOULD TECHNOLOGY</b> <b>TEMPERATURE CONTROL SYSTEMS</b> <b>TEMPERATURE CONTROL UNITS</b>
<b>gwk.</b> REDUCED OPERATING COSTS.		
<b>gwk.</b> LOW SPACE REQUIREMENT.		
<b>gwk.</b> INCREASED PROCESS RELIABILITY.		
<b>gwk.</b> INCREASED OPERATIONAL RELIABILITY.		
<b>gwk.</b> MINIMISED REJECT RATES.		
<b>gwk.</b> REDUCED ENERGY COSTS.		<b>gwk.</b> <b>CHILLERS</b> <b>COOLING SYSTEMS</b>
<b>gwk.</b> REDUCED CYCLE TIMES.		
<b>gwk.</b> REDUCED CO <sub>2</sub> CONSUMPTION.		
<b>gwk.</b> INCREASED PRODUCTIVITY.		<b>gwk.</b> <b>WATER TREATMENT</b> <b>CLEANING TECHNOLOGY</b>
<b>gwk.</b> IMPROVED PARTS QUALITY.		

**OUR MISSION.**

**WE MANAGE THE ENTIRE THERMAL PROCESS; WE GENERATE DESIGNS AND DELIVER ENGINEERING, COMPONENTS AND SYSTEM SOLUTIONS.**

**We are gwk.**



# INDIVIDUAL TEMPERATURE CONTROL.

Optimising cost-efficiency and quality. **gwk**

**gwk.**  
**TEMPERATURE CONTROL SYSTEMS**  
**TEMPERATURE CONTROL UNITS**



## TEMPERATURE CONTROL SYSTEMS



**integrat 4D | proflow | integrat direct | pulsetemp |  
integrat 40 | integrat 80 | integrat evolution |  
integrat vario**

In developing the integrat system, gwk engineers have applied their over 20 years of experience in segmented temperature control for moulds.

In order to offer each customer the perfect temperature control system, gwk can exploit an extensive repertoire of system solutions. These include mould inserts with close-to-cavity temperature control, segmented and cyclic mould temperature control and dynamic cavity temperature control with ceramic power heaters or CO<sub>2</sub>.

**gwk.**

## **UNLIMITED OPPORTUNITIES.**

Temperature control solutions from gwk will effectively unlock the full potential of your production. Every process requires customised temperature control to ensure optimum results in terms of quality and economic efficiency. Systematic temperature control not only lowers the production costs and optimises the number of completed

items. It also improves the quality of the parts and minimises the number of rejected parts.

gwk temperature control systems are designed for industrial use, operate with precision and can be adapted to the individual needs of numerous sectors.

### **COMPACT TEMPERATURE CONTROL UNITS**



**teco cd | teco cr | teco cs | teco cw |  
protemp selection | protemp advanced**

The teco series guarantees cost-efficient temperature control with water or heat transfer oil at temperatures from 0 °C to 400 °C. The units are characterised by robustness, ease of operation, extensive standard equipment and high performance. The high-end temperature control units of the enersave series for demanding and energy-conscious users achieve the highest levels of efficiency thanks to their speed-controlled centrifugal pumps and special design. They are suitable for use with water as the temperature control medium up to 140 °C.

### **MODULAR TEMPERATURE CONTROL UNITS**



**teco th | teco tt | teco wd | teco wh | teco wi**

In addition to economic efficiency, customer-specific requirements in terms of design and integration in processing machinery, as well as specific national requirements, determine the design of gwk temperature control systems. A wealth of experience and a well-conceived, ultraflexible production process leaves plenty of scope for implementing individual customer requirements. Thus, the production of both customised and standard process-optimised temperature control technology is not a contradiction for gwk.

**gwk.**  
**CHILLERS**  
**COOLING SYSTEMS**

**CHILLERS**



**weco | weco a/r | weco w | weco wd**

gwk is continuously expanding and optimising its product range in close cooperation with its customers. This means that you can expect gwk chillers always to reflect state-of-the-art technology.

The chillers which can be either air- or water-cooled achieve a very high level of efficiency, reliably high operating safety and a long service life. Even in fluctuating ambient temperatures, they guarantee absolutely stable production conditions, enabling tangible improvements in the production process. As gwk technology also handles energy extremely efficiently, your operating costs will be significantly reduced, which is good news for the environment, too.

**gwk.**

**ABSOLUTE RELIABILITY.**

Reliable chillers and cooling systems are a key element in an optimised production plant. Ideal results can only be achieved if the technology is perfectly tailored to the needs of production.

The cooling technology meets the highest quality standards because gwk takes care of development and production itself and only uses top-quality branded components.

## COOLING SYSTEMS



**Energy-saving combined systems | hermeticoool | hermeticoool hybrid | ghkv | gvk | ku | skl | sklc | skw**

gwk designs integrated systems with the lowest operating costs for production, taking advantage of its unique vertical integration. For gwk customers this means an extensive warranty for the correct calculation, planning, implementation and "turnkey assembly" of their finished system. gwk has been producing combined systems and heat recovery units for over 50 years. The plants installed to date not only save several hundred million

kilowatts of thermal energy each year, but also a similar amount of electrical energy. On top of this, considerable operating costs can be saved.

In addition to offering benefits to the operators, gwk also makes a significant contribution to environmental protection.

**gwk.**  
**CLEANING TECHNOLOGY**  
**WATER TREATMENT**



## CLEANING TECHNOLOGY



### **moldclean**

Lime-scale and corrosion are hidden cost drivers. Inevitably, these two "enemies to productivity" prolong cooling times, reduce process reliability and negatively impact on the properties of moulded parts. Depending on the level of impurities, cleaning cooling and temperature control channels can reduce cooling time by up to 40% - in some cases even more.

gwk can carry out such cleaning on request. In addition, gwk has designed the moldclean series, which is very easy for operators to use for themselves: moldclean controls the cleaning process in a largely automated approach. Making maintenance a pleasure.

**gwk.**

**MODULAR. SYSTEM-INTEGRATED.**

A clean cooling and temperature control medium and clean temperature control channels ensure homogenous temperature distribution. However, because impurities in the water can lead to deposits forming in the system circuit, quality declines as the

level of impurities increases. That's why the appropriate treatment of water and the regular cleaning of the cooling circuits are vitally important as the only way to restore maximum productivity.

## WATER TREATMENT



**waterclean | filters | accessories**

The aim of gwk's water treatment products is to increase your level of productivity. gwk offers the necessary processes for the treatment, conditioning and maintenance of auxiliary water and circuit water for open and closed thermal transfer systems. The variety of treatment processes available and their sizes can be adapted to the requirements of various cooling systems in terms of technology and performance.

The partial-flow filtration removes undissolved substances. Depending on the equipment, the filters are flushed out automatically when the level of impurities is high, thereby cleaning themselves. Softening or demineralisation optimises the top-up water quality. Dosing systems for additives ensure the automatic conditioning of the circuit water.

## Honest and committed - in personal discussions

Working together with the customer, gwk identifies the individual project and product requirements.

The constructive exchange of ideas has proven itself even after the completion of a project or the installation of the system components.

Give us a call. A member of the gwk team will be happy to advise you.

Telephone: +49 2354 7060-0



## Reliable service - before and after commissioning

### TECHNICAL CUSTOMER SERVICE



- Preventive maintenance
- Leak test for cooling systems
- Interface analysis
- Repairs

### PROCESS OPTIMISATION



- Sampling on the customer's premises or in the gwk technology centre
- Performance measurement on the mould
- Optimisation of mould temperature control

### 24 / 7 HOTLINE



- Commissioning
- Spare parts service
- Technical helpline

### THERMAL OPTIMISATION



- Thermal mould layout
- Temperature profile measurement on the moulded part
- Thermal analysis
- Optimisation of cycle times

### IN-HOUSE SERVICE INSPECTION



- Mould cleaning
- System cleaning
- Technical training
- Performance measurement

### PROJECT STUDIES



- Energy expertise
- Layout of the optimum combined system
- Concepts for the utilisation of waste heat
- Calculation of cost-efficiency

On-site when you need us.



gwk deploys its own service teams wherever systems and machines need to be installed, maintained and repaired. Worldwide.

Online availability around the clock [www.gwk.com](http://www.gwk.com)









# gwk

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