



moldclean

Cleaning and protection of cooling channels



Efficient cleaning of
polluted circuits –
Reduction of cooling time

gwk

moldclean – Cleaning of heat conducting in cooling and temperature control circuits

-  **Reduce cycle time**
-  **Minimize reject rates**
-  **Increase productivity**
-  **Lower maintenance costs**

The **moldclean** series was designed to clean scaled cooling channels of injection moulds and heat exchanger systems. The ph-value control and the flow rate measurement indicate the progress of the cleaning process.

Regular maintenance sustains long-lasting productivity

Minerals that are dissolved in the circulation water separate and solidify on heat conducting surfaces, obstruct heat transmission, create hot spots and prolong cycle times. Oxygen and carbonic acid are released and lead to corrosion, which, in turn, causes further downtimes. Additional maintenance, unstable processes and downtimes incur major costs, which can only be prevented if the surfaces are kept clean.

Depending upon the grade of contamination the cleaning of the cooling channels results in a **cooling time reduction of up to 40 % and even more.**

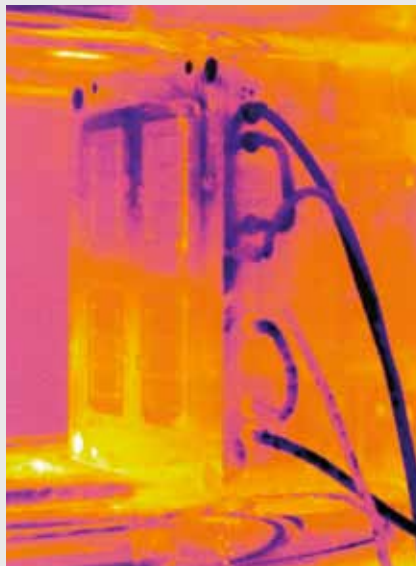
As a system supplier, **gwk** has been offering cleaning of components that have conducted water for a long time. The latest development, easy to use by the processor himself, is **moldclean**, a compact appliance which cleans polluted cooling channels in injection moulds and heat exchanger systems.

Maintenance support

The state-of-the-art cleaning units of the **moldclean** series can be very effective as they carry out the cleaning process virtually automatically and reduce the employees' workload. The expenses for the regular cleaning are relatively low in comparison to the regained productivity and the obtained process reliability.

System cleaning

Polluted cooling channels increase the temperature of the mould wall and thus reduce the quality of the moulded part while at the same time cooling time is increased. The loss of production in the presented example was 1,600 machine hours per year. This amounted to 48,000 EUR. Cleaning costs were amortized after a few days.



Inhomogeneous temperature distribution in the injection mould due to polluted temperature conditioning circuits.



Homogenous temperature distribution in the injection mould after the temperature conditioning circuits have been cleaned.

parts



Increase productivity by cleaning and protection of temperature control channels



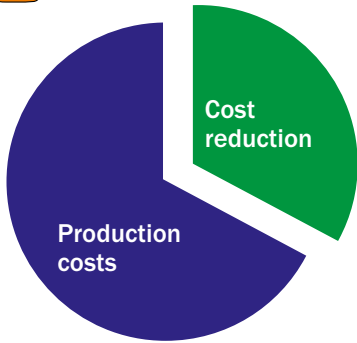
gwk moldclean mc 8:
The innovative solution to clean up to 8 temperature control circuits simultaneously.

• = Standard / o = Option / - = not available

	moldclean mc 1-1	moldclean mc 1-2	moldclean mc 8
Medium	water	water	water
Cleaning agent	CC 103, CC 506, CC 507	CC 103, CC 506, CC 507	CC 103, CC 506, CC 507
Neutralization agent	NA 2 liquid	NA 2 liquid	NA 2 liquid
Max. circulating temperature	50 °C	50 °C	50 °C
Nominal pump capacity	28,3 l/min., 4,8 bar	28,3 l/min., 4,8 bar	166 l/min., 4 bar
Circulating medium supply/return	Rp 1/2	Rp 1/2	Rp 1/2 (each 8 x)
Drain	Rp 1	Rp 1 (3 x)	Rp 1 (3 x)
Operating voltage	400 V / 50 Hz, 3 Ph, PE	400 V / 50 Hz, 3 Ph, PE	400 V / 50 Hz, 3 Ph, PE
Control voltage	230/24 V / 50 Hz	230/24 V / 50 Hz	230 V / 50 Hz
Heating capacity	6 kW	6 kW	6 kW
Power consumption	6,7 kW	6,7 kW	8,2 kW
Filling volumes (standard)	90 l	90 + 60 l	100 l (2 x)
Filling volumes with larger containers (optional)	-	-	200 l (2x)
Empty weight (standard)	187 kg	278 kg	398 kg
Empty weight with larger containers (optional)	-	-	419 kg
Dimensions in mm (W x D x H) (standard)	1.240 x 870 x 1.313 mm	1.475 x 870 x 1.579 mm	2.062 x 1.037 x 1.666 mm
Dimensions in mm with larger containers (W x D x H) (optional)	-	-	2.062 x 1.037 x 1.880 mm
Stainless steel pump	•	•	•
ph-value indication	•	•	•
Flow rate measurement	•	•	•
Automatic switch-over between the cleaning cycles	-	o	•
Integrated heating to accelerate the processes	•	•	•
Dirt separator	•	•	•
Common stainless steel tanks or cleaning and neutralisation solution	•	-	-
Separate stainless steel tanks for cleaning and neutralisation solution	-	•	•
Integrated stainless steel drip tray incl. drain	-	•	•
Splash-proofed electrics	•	•	•
Connection for compressed air drainage	•	•	•
Stainless steel fittings	o	•	o
Temperature indication	•	•	•
Level monitoring system	•	•	•
Flow direction reversal (DFRU) manual	•	•	o
Flow direction reversal (DFRU) automatic	o	o	o
Larger containers	-	-	o
Compressed air pulse cleaning	o	o	o

Subject to technical modification without notice!

gwk Perfect Cooling and Temperature Control

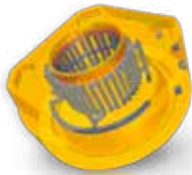


Increased productivity

In many areas of the industry, cooling and temperature control provides a great potential for increasing productivity and thus for lowering costs.

Many factors serve to improve productivity:

- Reduction of cooling time, therefore savings in required machine hours
- Improvement of product quality
- Increasing availability of production plants
- Decreasing running cost
- Reduction of maintenance cost



gwk integrat 4D
Optimal product quality through homogeneous temperature distribution by temperature control with close-to-cavity mould inserts.



gwk HSW
Cost reduction by means of advanced heat recovery systems.



gwk system integrat
Increase of productivity by means of specific and segmented mould temperature control.



gwk hermeticool hybrid
Innovative cooling system to decrease the running and maintenance cost in comparison to conventional cooling systems.



gwk teco c
The compact series with excellent price-performance ratio for the demanding plastics processor.



gwk container-plants
Highest flexibility and lowest expenses for planning, installation and relocation of a centralised cooling plant.



gwk teco wi / wd
Effective temperature control of applications with high material throughput. Also ideal for pre-heating of large injection moulds.



gwk ku-plants
The simplest and cheapest solution to increase the availability and to decrease the maintenance cost of open cooling systems.



gwk weco
Controllable production in variable climatic conditions and high flexibility with compact, energy-saving water chillers using environmentally friendly refrigerant.



gwk service
Decreasing the maintenance cost and protection of company owned resources through professional execution of installation and maintenance works incl. cooling water treatment.



Member of the technotrans group

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