

moldclean mc and moldclean mc cr

Efficient cleaning of polluted circuits –
Reduction of cooling time



Your reliable partner in the field of thermal management



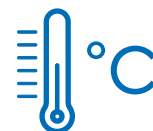
Partner of the industry for more than 50 years

Know-how, not only in the plastics and metal industry



Solutions for an efficient future

Indispensable for a CO₂ neutral production



Extensive power range from cold to hot

Instruments, equipment and systems from - 80°C to 430°C

power to transform

In almost all industry sectors

Wherever temperatures and fluids play an important role in work and production processes, there are also opportunities for products from the technotrans Group. Our cooling and temperature control systems and other solutions are used worldwide in a wide range of industries. There is a broad spectrum:

From the printing industry to the plastics industry, and e-mobility to the food and beverage industry, via precise measurement technology and metalworking to safety technology.

Each industry sector has its own unique requirements, and each application is a new and exciting challenge.

In doing so, the technotrans Group is transferring its many years of expertise from established core sectors to new areas.

Because the basic requirements are the same across all sectors:

Reliable, precise, and energy-efficient technology. technotrans also creates **specific added value** – through **application-specific innovations**.

»If there is a thermal management challenge, we design and build a better solution.«

technotrans vision



Globally active – positioned internationally

A worldwide presence in all major markets



Flexibility as a result of multiple locations

Effective organisational units

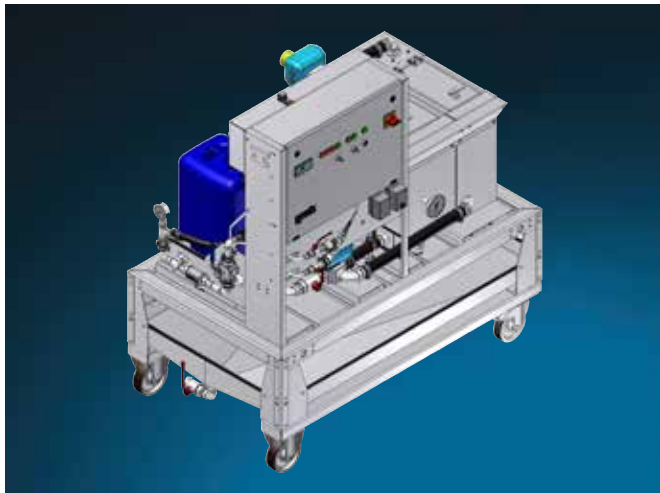


24/7 Customer Service

Worldwide technical support. Around the clock.

Series moldclean mc 1-1 and mc 1-2

- Mould cleaning and for cleaning smaller components



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.

Advantages at a glance

- Pulse cleaning with compressed air for increased cleaning efficiency.
- Separate stainless steel tanks for cleaning and neutralising agent for minimal chemical consumption
- Monitoring of the cleaning process through permanent pH value measurement and non-contact flow measurement
- Clear and easy operation
- Robust stainless steel unit design
- Parts in contact with the medium made of corrosion-resistant materials
- Integrated heating to accelerate the cleaning process
- Reverse flow direction
- Compressed air connection for draining the circuit
- Integrated stainless steel drip tray
- Mobile on stainless steel castors



› Increase productivity by cleaning and protection of temperature control channels

Series moldclean mc 8

- For cleaning large moulds with many cooling channels



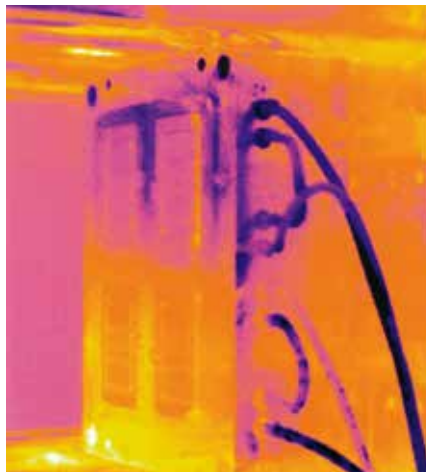
The mc 8 is designed for consumers with a large number of cooling channels.

Advantages at a glance

- Pulse cleaning with compressed air for increased cleaning efficiency.
- Separate stainless steel tanks for cleaning and neutralising agent for minimal chemical consumption
- Monitoring of the cleaning process through permanent pH value measurement and non-contact flow measurement
- Clear and easy operation
- Robust stainless steel unit design
- Parts in contact with the medium made of corrosion-resistant materials
- Integrated heating to accelerate the cleaning process
- Reverse flow direction
- Compressed air connection for draining the circuit
- Integrated stainless steel drip tray
- Mobile on stainless steel castors

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 €. Cleaning costs were amortized after a few days.

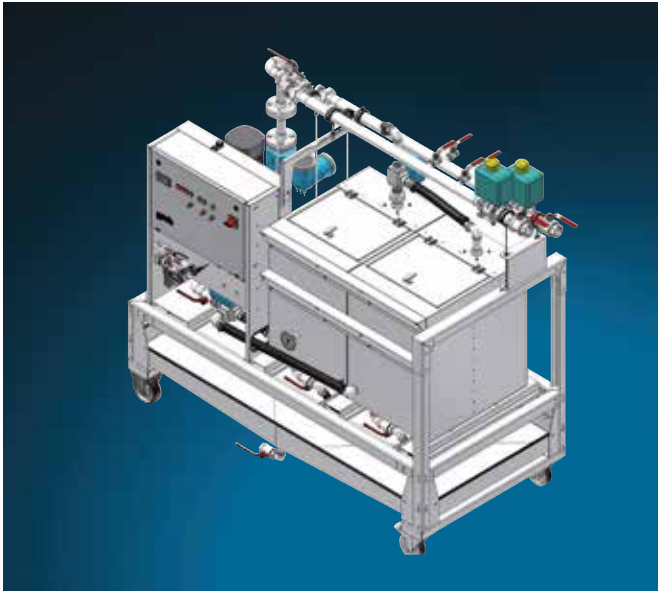


› Inhomogeneous temperature distribution in the injection mould due to polluted temperature conditioning circuits.



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

moldclean mc cr – Clean fouled chill rolls efficiently – Reduce cooling time



Lime and corrosion are hidden cost drivers. The two “enemies of productivity” inevitably extend the cooling time, reduce process reliability and have a negative effect on the properties of the moulded parts.

The problem creeps in at each plastic processing company because lime and corrosion slowly form an insulating layer in the cooling rollers, which results in an ever worsening heat transfer. Often the problem is not recognized until the required product quality can no longer be reached, or until a total failure of the systems occurs. Depending on the degree of accumulated dirt, the cleaning of cooling rollers reduces energy consumption/cooling time by up to 40 %, and in some cases even more.

The special feature of this device is its userfriendly design. The controls are clearly arranged and their functionality is easy to understand. The operator controls all cleaning parameters during the cleaning procedure.

Advantages at a glance

- Pulse cleaning with compressed air for increased cleaning efficiency.
- Separate stainless steel tanks for cleaning and neutralising agent for minimal chemical consumption
- Monitoring of the cleaning process through permanent pH value measurement and non-contact flow measurement
- Clear and easy operation
- Robust stainless steel unit design
- Parts in contact with the medium made of corrosion-resistant materials
- Integrated heating to accelerate the cleaning process
- Reverse flow direction
- Compressed air connection for draining the circuit
- Integrated stainless steel drip tray
- Mobile on stainless steel castors
- Optimally adapted to the cleaning of chill rolls / consumers with nominal diameters up to 2“.
- Increased tank volume for cleaning large / high rollers (optional)

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

	moldclean mc 1-1	moldclean mc 1-2	moldclean mc 8	moldclean mc cr
Carrier medium	water	water	water	water
Cleaning agent	cc 4, cc 506, cc 507	cc 4, cc 506, cc 507	cc 4, cc 506, cc 507	cc 4, cc 506, cc 507
Neutralising agent	na 2	na 2	na 2	na 2
Max. circulation temperature	50 °C	50 °C	50 °C	50 °C
Nominal pump rating	28,3 l/min., 4,8 bar	28,3 l/min., 4,8 bar	166 l/min., 4 bar	166 l/min., 4 bar
Circulation medium supply/return flow	Rp 1/2	Rp 1/2	Rp 1/2 (je 8 x)	Rp 2 (1 x) + Rp 3/4 (2 x)
Drainage	Rp 1	Rp 1 (3 x)	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	400 V / 50 Hz, 3 Ph, PE
Control voltage	230/24 V / 50 Hz	230/24 V / 50 Hz	230 V / 50 Hz	230 V / 50 Hz
Heating capacity	6 kW	6 kW	6 kW	6 kW
Connected load	6,7 kW	6,7 kW	8,2 kW	8,2 kW
Filling volumes (standard)	90 l	90 + 60 l	100 l (2 x)	100 l (2 x)
Filling volumes with larger containers (optional)	-	-	200 l (2x)	200 l (2x)
Empty weight (standard)	187 kg	278 kg	398 kg	398 kg
Empty weight with larger containers (optional)	-	-	419 kg	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	2.307 x 1.075 x 1.839 mm
Dimensions in mm with larger containers (W x D x H) (optional)	-	-	2.062 x 1.037 x 1.880 mm	2.307 x 1.075 x 2.124 mm
Pump made of stainless steel	•	•	•	•
pH display	•	•	•	•
Flow meter	•	•	•	•
Automatic switching between cleaning cycles	-	o	•	•
Integrated heating in order to accelerate the cleaning process	•	•	•	•
Dirt trap	•	•	•	•
Common stainless steel container for clean- ing and neutralisation solution	•	-	-	-
Separate stainless steel container for clean- ing and neutralisation solution	-	•	•	•
Integrated stainless steel drip tray incl. drain	-	•	•	•
Splash proof electrical system	•	•	•	•
Connection for compressed air drainage	•	•	•	•
Stainless steel fittings	•	•	•	•
Temperature indication	•	•	•	•
Level monitoring system	•	•	•	•
Flow direction reversal (DFRU) manual	•	•	o	o
Flow direction reversal (DFRU) automatic	o	o	o	o
Larger containers	-	-	o	o
Compressed air pulse cleaning	o	o	o	o

Subject to technical modification without notice!

