TOOL-TEMP®

INJECTION MOULDING

Injection moulding

mould temperature regulation

Temperature Control Units in plastic injection moulding process

The use of Temperature Control Units for the regulation of injection moulds increases the stability of the process and the productivity. The dimensional stability as well as the quality of the product is guaranteed and the cycle time can be shortened. By technical plastics, Temperature Control Units have become a must to have.

The goal in focus is at any case a satisfactory costs/performance ratio.

Process optimisation and constant product quality

Thanks to high-tech components, the temperature is getting regulated to a precision of a tenth of a degree and the medium circulation is getting monitored. This supports a regular control and permanent amelioration of the production processes. The constant mould temperature regulation ensures a thorough quality of the product and a perfect surface finish. It also avoids time consuming after treatment. Quantity increases and costs reductions are therefore achievable.

Advantages of TOOL-TEMP Temperature Control Units

TOOL-TEMP products are exclusively developed and manufactured in Switzerland. Already at the R&D stage, a particular attention is carried to the choice of high-quality components. As an example all components getting in contact with water are manufactured from high quality stainless steel or bronze. TOOL-TEMP renounces by all units to use flexible hoses for the internal piping and consciously uses a robust fix-piping. All our units are equipped with an integrated flow control which allows a constant monitoring of the medium circulation.

TOOL-TEMP disposes of a deep manufacturing penetration and can therefore ensure the quality of the in-house produced components. Important parts such as pumps, heat exchangers, flow controls, even special switches and relays are manufactured in Sulgen.

Short reaction times also by customised solutions are a matter of course and daily part of our service.

Precision, increased productivity and constant quality thanks to a mould regulation with Temperature Control Units

TOOL-TEMP Temperature Control Units in field-application

Universal units

Temperatures:
Water until 90°C, oil until 150°C

Heating capacity:
3 - 18 kW

Operational use:
Injection moulds from 1 kg up to 1‘800 kg
Processing of plastics like:
PS, ABS, SAN, PMMA, PPE, PP, PE, etc.

System:
Open system; the heat transfer medium is in contact to the oxygen in the air

Particularities:
- Flow control and pressure display
- Vacuum mode and mould drain
- Temperature measurement at the mould
- Interface controller
- Several pump types

Pressurised water units

Temperatures:
Water up to 160°C

Heating capacity:
6 - 48 kW

Operational use:
Processing of plastics like:
PC, PMP, POM, PET, PA6, etc.

System:
Closed system; the boiling point is raised to 140°C, resp. 160°C due to the static pressure in the system

Particularities:
- Flow control and pressure display
- Vacuum mode, pressure increase pump (booster pump)
- Mould drain with compressed air
- Temperature measurement at the mould
- Interface controller
- Magnetic-drive pump

Water units until 90°C

Temperatures:
Water 25°C - 90°C

Heating capacity:
3 - 144 kW

Operational use:
Injection moulds up to 30‘000 kg,
Consumer with large return volume

System:
Open system with high cooling capacity

Particularities:
- Flow control and pressure display
- Vacuum mode and mould drain
- Temperature measurement at the mould
- Interface controller
- Increased cooling capacity thanks to specific heat exchangers

Oil units up to 360°C

Temperatures:
Oil up to 360°C

Heating capacity:
8 - 48 kW

Operational use:
Injection moulds up to 10‘000 kg
Processing of plastics like:
PC, PMP, POM, PET, PA6, etc.

System:
Closed hot oil circuit with overlaying cold oil receiver in a large expansion tank

Particularities:
- Flow control and pressure display
- Vacuum mode and mould drain
- Temperature measurement at the mould
- Interface controller
- Magnetic-drive pump

TOOL-TEMP

Your Partner

Produced in Switzerland - worldwide service

- TOOL-TEMP units are exclusively developed and manufactured in Sulgen, Switzerland. This guarantees a high quality workmanship.
- Over 40 country agents and 14 TOOL-TEMP subsidiaries ensure a reliable and professional distribution and after-sale service locally.
- Short reaction times and rapid spare parts supply thanks to large stocks of spares and units.

Safety and reliability

- Constant quality thanks to the in-house development and manufacturing of core-components like pumps, heat exchangers, electro-technical parts, etc.
- Only well-selected high-class materials are used in manufacturing process.
- Clever safety circuits, acoustic and visual alarms to protect your installation.

Cost efficiency and rapidity

- Our deep level of manufacturing penetration provides a fast time-to-market, also for customised solutions.
- No costly production off-times and repairs thanks to maintenance friendly units.
- Good costs / performance ratio guarantees a fast return on investment.

TOOL-TEMP AG
Industriestrasse 30
CH-8583 Sulgen
Schweiz - Suisse - Switzerland

Tel.: +41 (0)71 644 77 77
Fax: +41 (0)71 644 77 00
E-Mail: info@tool-temp.ch
Internet: www.tool-temp.ch