



**EXTRUSION**

**TOOL-TEMP®**

# Extrusion

## Zone tempering

### Extrusion with liquid heat transfer media

Temperature control plays a decisive role throughout the manufacturing process when it comes to extrusion. Here, the temperature during certain process steps such as mixing, compounding, homogenising, conditioning and discharging, depending on the product and manufacturing process, must be increased or reduced zone by zone. The temperature control system with liquid heat transfer media delivers clear benefits here. In addition to a homogenous distribution of temperature, it offers the decisive advantage of simultaneous heat supply and dissipation within a temperature zone. An accurate and fast-responding temperature control system improves the structure of the conveying mass and helps with optimum surface composition. The improved conveying properties facilitate higher throughput rates with consistent quality and increased energy efficiency.

We offer a wide range of high-performance, fast-responding and accurate temperature control units, allowing us to meet the ever-increasing demands on production and quality in the market.

### Benefits of TOOL-TEMP temperature control units

TOOL-TEMP products are exclusively developed and manufactured in Switzerland. The selection of high-quality unit components is of the utmost importance even during the very early development stage. This means that all parts that come into contact with water are made of stainless steel or bronze. TOOL-TEMP products are deliberately made with robust pipework rather than flexible connections. All units are regulated with the latest technology down to the finest of details and feature integrated flow measurement, which makes it possible to monitor the circulation of media at any time.

TOOL-TEMP has a high depth of production, which ensures continuous quality assurance. Important components such as pumps, heat exchangers, flow meters as well as special switches and relays are produced at the Sulgen facility.

Speedy response times for customer-specific solutions are a matter of course for us and all part of the service.



Precision, high productivity and consistent quality thanks to the use of TOOL-TEMP temperature control units

TOOL-TEMP AG provides customised solutions



### Universal units

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

**Heating capacity:**  
3 - 18 kW

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

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

### Water units until 90°C

**Temperatures:**  
Water 25°C - 90°C

**Heating capacity:**  
3 - 144 kW

**System:**  
Open system with high cooling capacity

- Features:**
- 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

### Pressurised water units

**Temperatures:**  
Water up to 160°C

**Heating capacity:**  
6 - 48 kW

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

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

### Oil units up to 360°C

**Temperatures:**  
Oil up to 360°C

**Heating capacity:**  
8 - 48 kW

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

- Features:**
- Flow control and pressure display
  - Vacuum mode and mould drain
  - Temperature measurements 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 of 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 the manufacturing process.
- Clever safety circuits, acoustic and visual alarms to protect your installation.



## Cost efficiency and rapid response

- Manufacturing in house to component level provides a fast time-to-market, even for customised solutions.
- No costly production downtime and repairs thanks to maintenance friendly units.
- Good cost/performance ratio guarantees a fast return on investment.



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