



# MATIC Oil

200 12 A p

200 12 Z p

### Functions

- IRIS control system
- Pt100 temperature sensor in feed and return lines
- Heater control by solid-state relays
- Variable-speed pump with automatic eco-mode
- Mould drainage
- Leakstop operating mode

### Construction

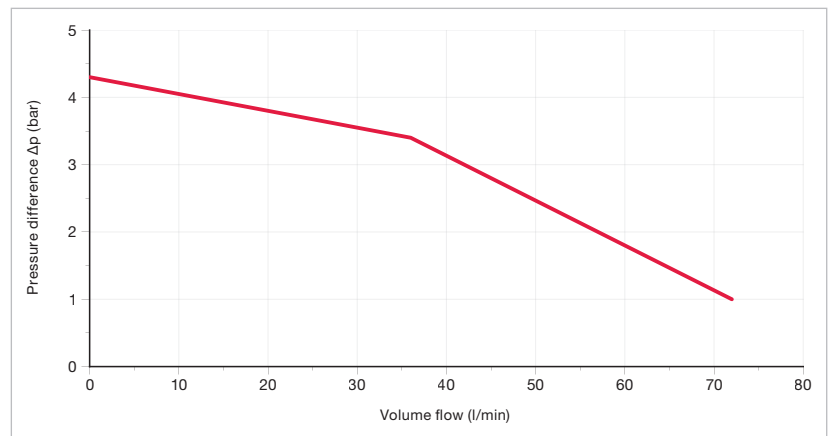
- Triple-bearing high-temperature pump, developed and manufactured by Tool-Temp
- Combination of limescale-free shell & tube and plate heat exchangers
- Fully immersed heaters made of high-temperature corrosion-free Nickel alloy (Incoloy 800)
- Maintenance-free flow meter
- Stainless-steel solid piping

### Safety features

- Mechanical temperature limiter with multiple redundancy
- Pump motor monitored by the variable frequency drive
- Configurable safeguard limits and corresponding reactions
- Configurable audible alarm

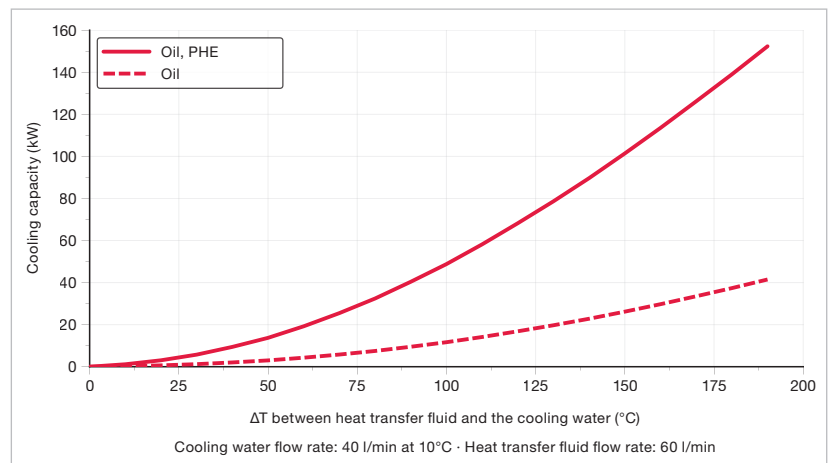


## Pump performance



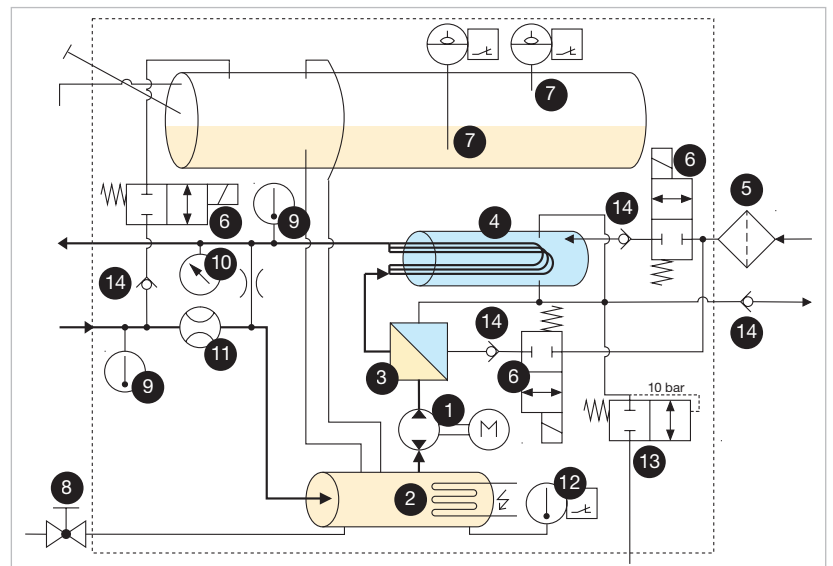
Performance data using Tool-Therm SH3 heat transfer oil at 200°C

## Cooling capacity



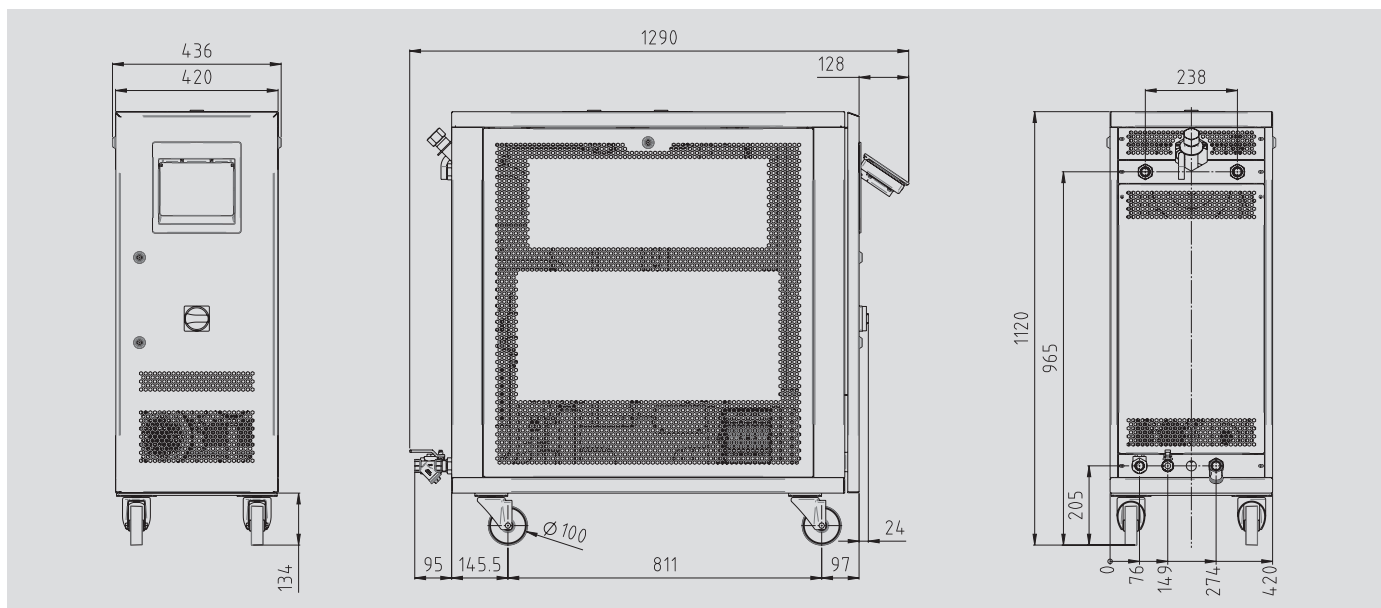
Cooling water flow rate: 40 l/min at 10°C · Heat transfer fluid flow rate: 60 l/min

## Fluidic diagram



1 pump with reversible pumping direction, 2 heating element, 3 plate heat exchanger, 4 cooling coil, 5 filter, 6 2-2 way valve (normally closed), 7 level sensors, 8 ball valve, 9 temperature sensor, 10 pressure sensor, 11 flow sensor, 12 safety temperature limiter, 13 pressure-relief valve, 14 check valve

# Technical data



	Oil
<b>Maximum temperature</b>	<b>200 °C</b>
<b>Heat output</b>	<b>12 kW</b>
<b>Cooling capacity</b>	See diagram
<b>Filling volume (heat transfer fluid)</b>	Min. 9 litres
<b>Expansion volume</b>	17 litres
<b>Pump</b>	<b>Type A or Z</b>
Pressure and flow rate	See diagram
Motor rated power	1.5 kW
<b>Control system</b>	IRIS
Temperature measurement	3-wire Pt100 (F0.15 according to IEC 60751), feed and return
Pump-pressure measurement	Piezoresistive pressure transmitter
Flow measurement (heat transfer fluid)	Impeller wheel sensor with inductive pick-up
Languages	EN, DE, FR, IT, ES, NL, CZ, PT, HU, PL, SV, HBS, JA, TR, ZH, RO (expandable)
<b>Interfaces</b>	IO1: RS232, RS485, CL 20 mA, CAN (accessories)
OPC UA (standard)	IO2: Profibus, Profinet, EtherNet/IP (accessories)
	IO3: 0-10 V, 0/4-20 mA, external measurement (accessories)
<b>Connections</b>	
Heat transfer fluid (feed and return)	¾" BSPP (G¾) female thread
Cooling water inlet	¾" BSPP (G¾) female thread, with water filter
Cooling water outlet	¾" BSPP (G¾) female thread
<b>Empty weight</b>	173 kg
<b>Colour</b>	RAL 7035 light grey
<b>Surroundings</b>	
Temperature range	5-40 °C
Relative humidity	40-80% RH (non-condensing, no ice formation)
<b>Installation</b>	Inside, ventilation openings must be at least 10 cm clear
<b>Continuous sound pressure level</b>	< 70 dB(A)
<b>Power supply</b>	380-480 V, 50/60 Hz or alternatively 200-240 V, 50/60 Hz
<b>Connected load</b>	13.6 kW
<b>Conductor cross-section of connection cable</b>	
200-240 V	16 mm²
380-480 V	6 mm²
<b>Protection class device</b>	IP44, IP54 (optional)
<b>Labeling</b>	CE, UL-ready