


# MATIC Duo

## 90/150 18 E

## 90/150 18 H

	Water	Oil
	up to 90°C	up to 150°C
	Heating capacity <b>18 kW</b>	<b>6 kW</b>
	Cooling capacity <b>45 kW</b> @ 90°C	<b>10 kW</b> @ 150°C
	Cooling method indirect (shell & tube)	

## Robust Mechanical Design

- Tin-bronze submersible pump
- Calcification-free heat exchanger
- Fully immersed heaters made of high-temperature corrosion-free Nickel alloy (Incoloy 800)
- Maintenance-free flow meter
- Stainless-steel solid piping

## Features

- IRIS control system
- Pt100 temperature sensors in feed and return lines
- Heater control by solid-state relays
- Variable-speed pump with automatic eco-mode
- Time limited water refill
- Mould evacuation
- Leakstop operating mode

## Predictive Maintenance

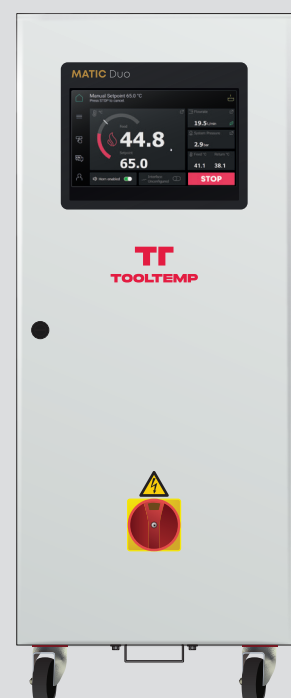
- Continuous monitoring and self-diagnosis of the system
- Clear indication and description of errors
- Condition monitoring of the heat-transfer fluid (oil)
- Condition monitoring of the pump (coming soon)

## Safety

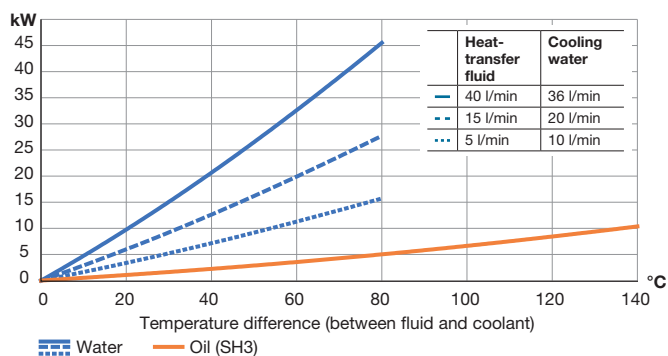
- Redundant, mechanical temperature limiter
- Pump motor monitored by the variable-frequency drive
- Configurable safeguard limits and corresponding reactions
- Configurable audible alarm

## Operation

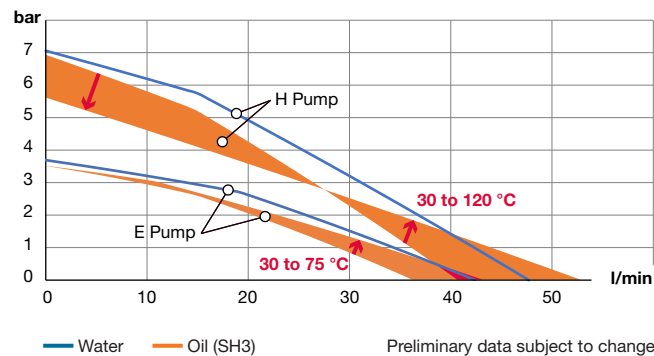
- Industrial-grade, tiltable 7" IPS touch-screen
- Intuitive user interface for commissioning and operation
- Broad range of connectivity features including external temperature sensor
- Automatic actions for common operations
- User-defined time-resolved recipes



## Cooling capacity



## Pump capacity



## Technical specifications

	Water	Oil
Maximum temperature	90 °C	150 °C
Heating capacity	18 kW	6 kW
Filling volume (heat-transfer fluid)	Minimum 16 litres, Maximum 20 litres	
<b>Pump</b>		
<b>Pump type: MATIC Duo 90/150 18 E</b>	<b>E</b>	
Pressure and Maximum flow rate	See diagram	
Motor rated power	0.73 kW	
<b>Pump type: MATIC Duo 90/150 18 H</b>	<b>H</b>	
Pressure and Maximum flow rate	See diagram	
Motor rated power	1.5 kW	
<b>Control system</b>	IRIS	
Temperature measurement	3-wire Pt100 (F0.15 acc. IEC 60751), feed and return	
Pump-pressure measurement	Piezoresistive pressure transmitter	
Flow measurement (heat-transfer fluid)	0-60 l/min, paddle-wheel sensor with inductive pickup	
<b>Dimensions (L x W x H)</b>	683 x 322 x 736 mm, incl. castors, approximate	
<b>Connections</b>		
Heat-transfer fluid (feed and return)	½" BS female thread	
Cooling water inlet	¾" BS female thread, with water filter	
Cooling water outlet	¾" BS external thread	
<b>Empty weight</b>	67 kg	
<b>Colour</b>	RAL 7035	
<b>Environment</b>		
Temperature range	5-40 °C	
Relative humidity	40-80 % RH (non-condensing, no icing)	
<b>Continuous noise level</b>	< 70 dB (A)	
<b>Power supply</b>	200-240 V and 380-480 V, 50 and 60 Hz	
<b>Ingress protection code</b>	IP44, IP54 optional	
<b>Marking</b>	CE, UL-ready	