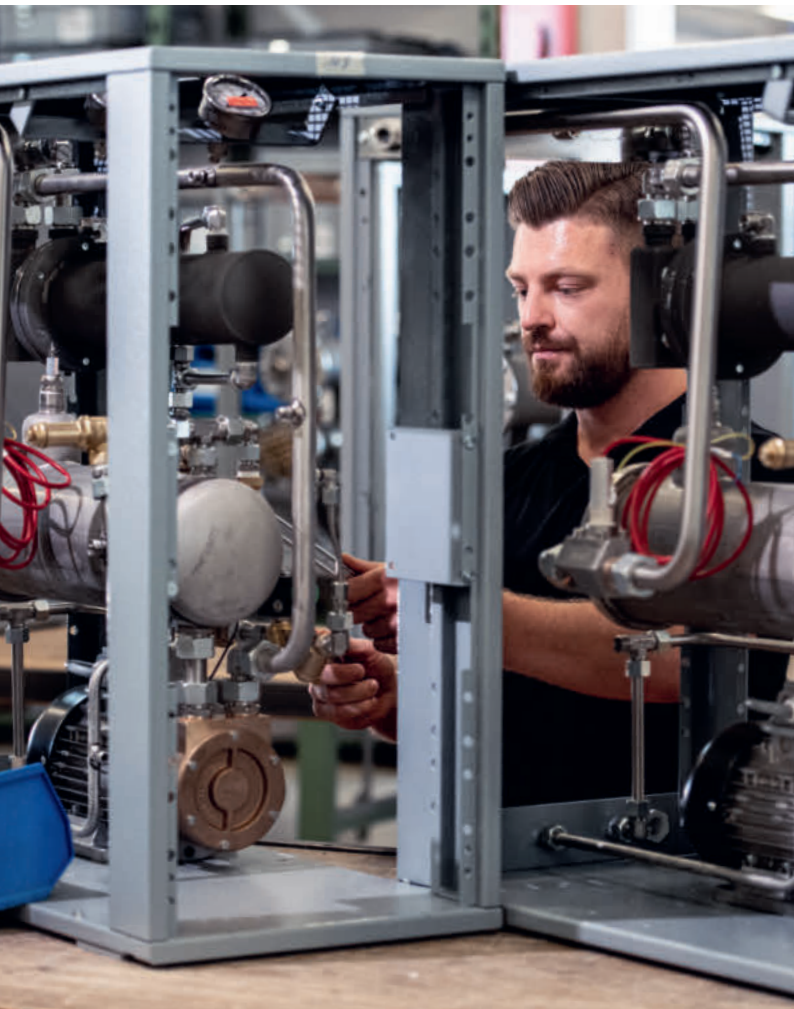


**STANDARD – PRODUCT OVERVIEW**

Temperature control and  
cooling units



# STANDARD PRODUCT RANGE

Our standard temperature control and cooling units are perfect as stand-alone solutions. They are both robust and easy to maintain. The use of proven technologies guarantees the durability of this product group.

Our standard range of temperature control units comes with digital networking capabilities. Units from our standard range are ideal solutions for applications in which your temperature control unit's main function is to control the temperature of the circulation medium.

## Features and benefits of the Standard range

- Service-friendly
- Robust and reliable
- User-friendly thanks to a minimalist user interface

### Standard controller MP-888

Your temperature control unit contains a digital temperature controller. This ensures precise temperature control even at high temperatures. It displays the current and target temperature. The controller monitors the circulation of the medium and triggers an alarm if the flow rate drops. The digital temperature controller can be operated in °F or °C units and features analogue interfaces of 0–5 V, 0–10 V and 4–20 mA as standard.

### Digital interface controller MP-988

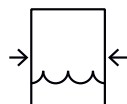
In addition to the standard digital controller we also offer a digital interface controller with RS-485, RS-232, 20 mA current loop, CAN-bus, Profibus and Profinet interfaces. These interfaces are accessible without having to insert any additional cards. Also included is a temperature difference display and over 30 integrated machine protocols.



**1** Universal water and oil temperature control units up to 90°C/150°C



**2** Water temperature control units up to 90°C



**3** Pressurised water temperature control units up to 160°C



**4** Oil temperature control units up to 360°C



**5** Cooling units from -25°C up to +40°C

# 1 Universal water and oil temperature control units up to 90°C/150°C

	Unit	TT-180	TT-181	TT-188	TT-168 E   H
<b>Temperature range</b>					
Water	°C	90	90	90	90
Oil	°C	150	150	150	150
<b>Heat transfer medium</b>					
Filling amount max.	l	7	7	7	20
<b>Heating capacity</b>					
Water	kW	9	9	9	12
Oil	kW	3	3	3	6
<b>Cooling system</b>					
		indirect			
<b>Tubular heat exchanger</b>	kW	35	35	35	45
at flow temperature	°C	90	90	90	90
<b>Pump system</b> see diagram					
<b>Typ E:</b> 60 l/min; max. 4.0 bar; motor 0.75 kW		■	■	■	■
<b>Typ H:</b> 60 l/min; max. 7.0 bar; motor 1.50 kW					■
Suction capacity vacuum	mWS	-	8	8	8
<b>Controller</b>					
		MP-888			
Temperature sensor		FeKo Type J			
<b>Functions</b>					
Flow control		-	-	■	■
Leakstopper device		-	■	■	■
Mould drain		-	■	■	■
Temperature regulation at the consumer		-	-	-	■
Time-limited water refill		-	-	-	■
Interface controller		-	-	□	□
Automatic refill		■	■	■	■
Level control		■	■	■	■
Visual fault indications		■	■	■	■
Acoustic warning		■	■	■	■
Pressure regulation		-	-	-	-

■ standard □ optional - not possible

## 2 Water temperature control units up to 90°C

	Unit	TT-170 L	TT-168 E/A   H/A	TT168 E/PHE   H/PHE TT168 E/A PHE   H/A PHE	TT-118 K
<b>Temperature range</b>	°C	90	90	90	90
<b>Heat transfer medium</b>		water	water	water	water
Filling amount max.	l	5	20	20	40
<b>Heating capacity</b>	kW	<b>3</b>	<b>18</b>	<b>12   18</b>	<b>18   27   36   45</b>
<b>Cooling system</b>		indirect	indirect	indirect	indirect
tubular heat exchanger	kW	<b>30</b>	<b>45</b>	<b>50</b>	<b>200</b>
Plate heat exchanger	kW			<b>130</b>	<b>400</b>
Direct	kW				
at flow temperature	°C	90	90	90	90
<b>Pump system</b> see diagram					
<b>Typ L:</b> 19 l/min; max. 2.9 bar; motor 0.27 kW		■			
<b>Typ E:</b> 60 l/min; max. 4.0 bar; motor 0.75 kW			■	■	
<b>Typ H:</b> 60 l/min; max. 7.0 bar; motor 1.50 kW			■	■	
<b>Typ K:</b> 200 l/min; max. 4.3 bar; motor 2.2 kW					■
<b>Typ W:</b> 250–350 l/min; max. 4.5 bar; motor 4.0 kW					
<b>Typ V:</b> 580 l/min; max. 4.1 bar; motor 7.5 kW					
Suction capacity vacuum	mWS	-	8	8	8
<b>Controller</b>				MP-888	
Temperature sensor				FeKo Type J	
<b>Functions</b>					
Flow control		-	■	■	■
Leakstopper device		-	■	■	■
Mould drain		-	■	■	-
Temperature regulation at the consumer		-	■	■	■
Time-limited water refill		-	■	■	■
Interface controller		-	□	□	□
Automatic refill		■	■	■	■
Level control		■	■	■	■
Visual fault indications		■	■	■	■
Acoustic warning		■	■	■	■
Pressure regulation		-	-	-	-

■ standard □ optional - not possible

TT-1548 E	TT-108 E	TT-108 K	TT-1500 W	TT-1368 W	TT-1368 V
90	90	90	90	90	90
water	water	water	water	water	water
20	20	40	75	70/100	100
<b>12</b>	<b>6   12   18</b>	<b>18   27   36   45</b>	<b>48</b>	<b>24   48   72   96</b>	<b>72   96   144</b>
air cooled	direct	direct	direct	indirect	indirect
<b>5</b>				<b>400</b>	<b>400</b>
	<b>100</b>	<b>260</b>	<b>285</b>		
70	90	90	80	70	80
■	■				
		■			
			■	■	
					■
8	8	8	-	-	-
MP-888					
FeKo Type J					
■	■	■	■	■	■
■	■	■	-	-	-
■	■	■	■	-	-
■	■	■	-	-	-
-	-	-	-	-	-
□	□	□	□	□	□
-	■	■	■	■	■
□	■	■	■	■	■
□	■	■	■	■	■
□	■	■	■	■	■
-	-	-	□	□	□

### 3 Pressurised water temperature control units up to 160°C

	Unit	TT-1398 N	TT-142 N	TT-137 N	TT-137 B/BP
<b>Temperature range</b>	°C	140	140	140	160
<b>Heat transfer medium</b>		water	water	water	water
<b>Heating capacity</b>	kW	<b>6</b>	<b>12</b>	<b>12</b>	<b>12</b>
<b>Cooling system</b>		indirect	indirect	indirect + direct	indirect + direct
Tubular heat exchanger	kW	<b>20 @ 140°C</b>	<b>60 @ 140°C</b>	<b>65 @ 140°C</b>	<b>90 @ 160°C</b>
Plate heat exchanger	kW				
Direct	kW			<b>60 @ 50°C</b>	<b>60 @ 50°C</b>
<b>Pump system</b> see diagram					
<b>Typ N:</b> 110 l/min; max. 5.0 bar; motor 1.8 kW		■	■	■	
<b>Typ B:</b> 75 l/min; max. 6.5 bar; motor 1.8 kW					■
<b>Typ P:</b> 36 l/min; max. 5.0 bar; motor 1.1 kW					
<b>Typ W:</b> 250 l/min; max. 4.5 bar; motor 4.0 kW					
with booster pump		-	-	-	■
Suction capacity vacuum	mWS	-	8	8	8
<b>Controller</b>				MP-888	
Temperature sensor				FeKo Type J	
<b>Functions</b>					
Flow control		■	■	■	■
Leakstopper device		-	-	■	■
Pressure relief		■	■	■	■
Mould drain by compressed air		-	-	■	■
Temperature regulation at the consumer		-	-	■	■
Interface controller		□	□	□	□
Automatic refill		■	■	■	■
Level control		■	■	■	■
Visual fault indications		■	■	■	■
Acoustic warning		■	■	■	■

■ standard □ optional - not possible

TT-138 N	TT138 B/BP	TT-DW160	TT-1358 W
140	160	160	130
water	water	water	water
<b>18   24</b>	<b>18   24</b>	<b>9   18</b>	<b>24   48</b>
indirect + direct	indirect + direct	indirect	indirect
<b>85 @ 160°C</b>	<b>85 @ 160°C</b>		<b>180 @ 130°C</b>
		<b>40 @ 150°C</b>	<b>400 @ 70°C</b>
<b>60 @ 60°C</b>	<b>60 @ 60°C</b>		
■			
	■		
		■	
			■
-			-
8	8	-	-

MP-888

FeKo Type J

■	■	■	■
■	■	-	-
■	■	■	■
■	■	-	-
■	■	-	-
□	□	□	□
■	■	■	■
■	■	■	■
■	■	■	■
■	■	■	■

## 4 Oil temperature control units up to 360°C

	Unit	TT-248	TT-288	TT-OIL300	TT-388	TT-388	TT-388
<b>Temperature range</b>	°C	200	250	300	360	360	360
<b>Heat transfer medium</b>		oil	oil	oil	oil	oil	oil
Filling amount	l	8	9	9	15/21	27	70
Expansion volume	l	6	11	17	16	36	36
<b>Heating capacity</b>	kW	<b>8</b>	<b>8</b>	<b>12</b>	<b>16   24</b>	<b>32</b>	<b>48</b>
<b>Cooling system</b>		indirect					
Tubular heat exchanger	kW	<b>20</b>	<b>60</b>	<b>60</b>	<b>90</b>	<b>160</b>	<b>230</b>
Plate heat exchanger	kW						
at flow temperature	°C	200	250	290	360	360	360
<b>Pump</b>							
Motor	kW	1.8	1.8	1.8	1.8	1.8	1.8
<b>Pump system</b> see diagram							
<b>Typ Z:</b> axial face sealed 100 l/min; max. 5.5 bar		■	■	■	■	■	■
<b>Typ A:</b> magnetic drive 100 l/min; max. 5.5 bar		-	□	□	□	□	□
<b>Typ X:</b> 260 l/min; max. 4.0 bar							
<b>Typ Y:</b> 200–500 l/min; max. 4.0 bar							
Suction capacity vacuum	mWS	8	8	8	8	8	8
<b>Controller</b>		MP-888	MP-888	MP-888	MP-888	MP-888	MP-888
Temperature sensor		FeKo Type J	FeKo Type J	FeKo Type J	FeKo Type J	FeKo Type J	FeKo Type J
<b>Functions</b>							
Flow control		■	■	■	■	■	■
Leakstopper device		■	■	■	■	■	-
Mould drain		■	■	■	■	■	-
Temperature regulation at the consumer		■	■	■	■	■	-
Interface controller		-	□	□	□	□	□
Level control		■	■	■	■	■	■
Visual fault indications		■	■	■	■	■	■
Acoustic warning		■	■	■	■	■	■
Pressure regulation		-	-	-	-	-	-
Double circuit version		-	■	-	■	-	-

■ standard □ optional - not possible



TT-390	TT-508 X	TT-510 X	TT-708 Y	TT-407 Z	TT-409 Z	TT-410 X	TT-608 Z
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360	300	300	300	240	240	240	300
oil	oil	oil	oil	oil	oil	oil	oil
15/21	75	125	100   200   200	11	60	75	50 + 50
16	75	100	100	16	36	75	75

<b>16   24</b>	<b>48</b>	<b>96</b>	<b>72   120   144</b>	<b>8</b>	<b>24</b>	<b>48</b>	<b>24   48</b>
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indirect

<b>90</b>	<b>480</b>	<b>480</b>	<b>600</b>	<b>67</b>	<b>93</b>	<b>150</b>	
				<b>143</b>	<b>150</b>	<b>175</b>	<b>93</b>
360	see diagram	see diagram	see diagram	230   80	230   80	230   80	90

1.8	4	4	7.5	1.8	1.8	4	1.8
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■				■	■		■
□							
	■	■					
			■			■	
8	-	-					

MP-888	MP-888	MP-888	MP-888	MP-988	MP-988	MP-988	MP-888
FeKo Type J	FeKo Type J	FeKo Type J	FeKo Type J	Pt-100	Pt-100	Pt-100	FeKo Type J

■	■	■	■	■	■	■	■
■	-	-	-	-	-	-	-
■	-	-	-	-	-	-	-
■	-	-	-	■	■	■	-
□	□	□	□	□	□	□	-
■	■	■	■	■	■	■	■
■	■	■	■	■	■	■	■
■	■	■	■	■	■	■	■
-	□	□	■	■	■	■	-
■	-	-	-	-	-	-	-

## 5 Cooling units from -25°C up to +40°C

	Unit	TT-5'500 E	TT-14'500 H	TT-28'500	TT-29'800 WK
<b>Temperature range</b>	°C	+10°C up to +40°C	+10°C up to +40°C	+10°C up to +40°C	-25°C up to +25°C
Ambient temperatures	°C	+45°C	+45°C	+45°C	+45°C
<b>Refrigerating agent</b>		R-134a	R-134a	R-134a	R-404a
<b>Heating capacity</b>	kW	<b>5</b>	<b>6</b>	<b>9</b>	-
<b>Content water tank</b>	l	25	50	150	170
<b>Cooling capacity</b> nominal	kW	<b>5</b>	<b>14</b>	<b>28</b>	<b>54</b>
<b>Pump system</b>		E	H	CR5-7	CR5-7
Motor	kW	0.75	1.5	1.1	1.5
Pump pressure max.	bar	4.5	8.5	5	4.8
Flow capacity max.	l/min.	75	75	145	140
Flow capacity internal max.	l/min.				
<b>Compressor</b>	hermetically sealed				
<b>Condenser</b>					
Air-cooled		■	■	■	
Water-cooled		-	□	□	□
<b>Air volume</b>	m³/h	1'700	2'850	5'700	-
<b>Power consumption</b> heating/cooling model	kW	6/4	8/5	11.3/6	-/15
<b>Controller</b>		MP-888	MP-888	MP-888	MP-888
Temperature sensor		Pt-100	Pt-100	Pt-100	Pt-100
<b>Functions</b>					
Flow control		■	■	■	■
Interface controller		□	□	□	□
Version without tank		-	□	□	-

■ standard □ optional - not possible

TT-54'500	TT-108'000	TT-216'000	TT-300'000
+10°C up to +40°C	+10°C up to +40°C	+10°C up to +40°C	+10°C up to +15°C
+45°C	+45°C	+45°C	-
R-134a	R-134a	R-134a	-
<b>12</b>	-	-	-
250	360	600	-
<b>54</b>	<b>108</b>	<b>216</b>	<b>300</b>
CR10-6	CR10-6	CR15-4	CR32-2
2.2	2.2	4	3
6.2	6/4	5/3.5	
250	100/200	200/400	600
	200	500	-
hermetically sealed			-
■	■	■	■
□	□	□	
8'000	2×8'000	4×8'000	4×8'000
18/14	-/35	-/66	6.8
MP-888	MP-888	MP-888	□
Pt-100	Pt-100	Pt-100	Pt-100
■	-	-	-
□	□	□	□
□	□	□	-

# HERE FOR OUR COSTUMERS



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