

TEMPRO Mold Temperature Controllers



Superior Temperature Control

Technology working for you.

Wittmann
world of innovation

Superior TEMPRO plus D Touch-Screen Series for Perfect Quality

Latest design technology and operation ...

In pressurized operation, a gaug ensures that the internal pressure is always 1 bar min. over the steam pressure curve.

Because of the smaller heat exchanger there is less circulating water. As a result, the preheating time and the cool down period have been reduced.

Booster pump (for filling under pressure at temperatures of more than 100 °C)

Touch-screen display, 5.7", Windows CE

Heat exchanger made of stainless steel (Incoloy heating element)

Pump and system pressure gauges

Maintenance free magnetically coupled pump (standard in the TEMPRO plus C 160/180)

Heating control via solid state relay



Optimum visibility and operation of the TEMPRO plus D

- **Touch-screen**
The actual value and set point are displayed simultaneously.
- **Visual temperature control**
The mold symbol color indicates if the temperature is in the tolerance band (green: within tolerance; red: too hot; blue: too cold).
- **Additional information on the display**
The operator can choose an additional value to be displayed on the screen (pressure, flow).
- **Easy operation with the TEMPRO plus D**
Menus to adjust values and to choose operating modes can be selected with color touch-screen.
- **Quick selection**
Operating modes that are used frequently can be selected using the touch fields at the bottom of the screen.



Standard equipment for the TEMPRO plus D series

- Microprocessor controller with ± 0.2 °C accuracy.
- Automatic filling and constant pressure monitoring.
- Pressure gauges (system and pump pressures).
- Automatic pump rotation detection.
- Maximum temperature monitoring.
- Heater control with solid state relay.
- Pumps safe to run dry.
- Backflow sensor.
- Sensor break monitoring.
- External sensor socket for PT 100 sensors.
- Air purging (unlimited mold purge for 140/160 units).
- Timer (time switch).
- Potential-free dry contact for alarm output plus audible alarm.
- Operating hours counter with service interval indicator.
- Options: Flow control and measurement
Communications interfaces
Mold sensor FeCo (Type J) socket

TEMPRO plus D90/140/160/180

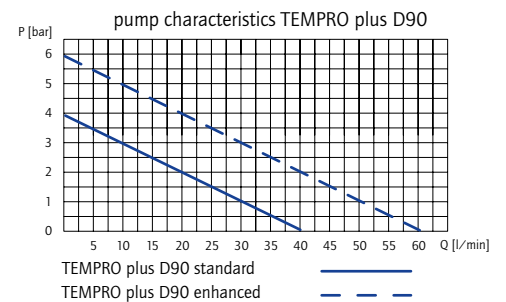
Circulating Water Single and Dual Zone Units

- **TEMPRO plus D90**
 - For temperatures up to 90 °C.
 - Open system with powerful, submersible pumps without pump seals.
- **TEMPRO plus CD40/160/180**
 - For temperatures up to 140 °C, 160 °C and 180 °C.
 - Pressurized system with powerful pumps and with magnetically coupled pumps for TEMPRO plus D160/180.

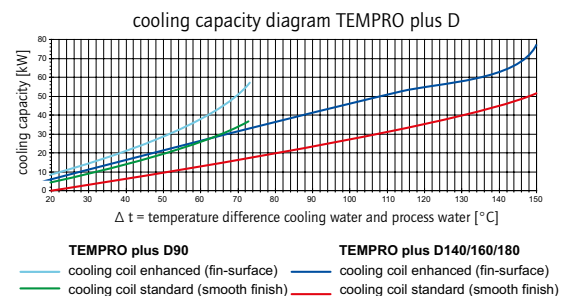
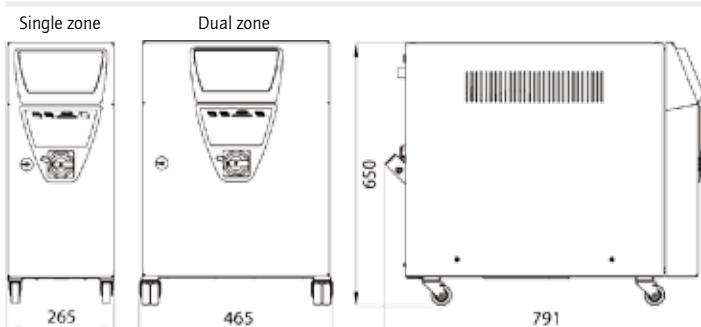
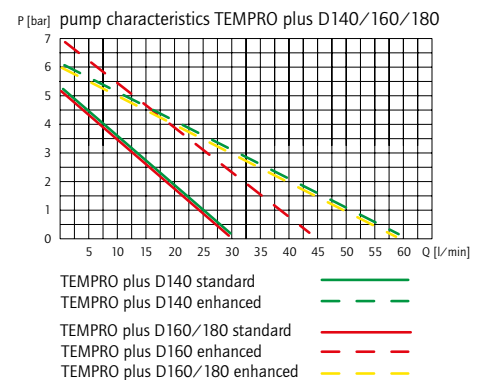


- Standard equipment
- Optional equipment
- no supply for this model

TEMPRO plus D	90	140	160	180
Microprocessor controller, self-optimizing	•	•	•	•
Maximum temperature monitoring	•	•	•	•
Sensor break monitoring	•	•	•	•
Automatic filling with leakage and pressure monitoring	•	•	•	•
Automatic pump rotation direction detection	•	•	•	•
Dry contact for alarm output plus audible alarm	•	•	•	•
Connectors for external sensors (PT100)	•	•	•	•
Leakstop function	•	◦	◦	◦
Air purging for mold changes (3 l max.)	•	–	–	–
Air purging for mold changes (unlimited volume)	–	•	•	•
Enhanced pump	◦	◦	◦	◦
Manual filling	•	–	–	–
Pressure measuring (system, pump, and flow pressure)	•	•	•	•
Flow measuring [1 = vortex, 2 = ultrasonic]	◦ ¹	◦ ²	◦ ²	–
Boost pump	–	•	•	•
Serial interface (RS 232, RS 485, 20 mA, CAN, E66, SPI)	◦	◦	◦	◦
Operating hour counter/clock timer	•	•	•	•
Horn	•	•	•	•



Technical Data	90	140	160	180
Heating capacity	9 kW (option: 12 kW)			
Pump capacity (50 Hz) standard	0.5 kW, max. 3.8 bar max. 40 l/min	0.5 kW, max. 4.6 bar max. 27 l/min	no seals 0.5 kW, max. 5 bar 30 l/min	
Pump capacity (50 Hz) enhanced	1 kW, max. 5.8 bar max. 60 l/min	0.75 kW, max. 6 bar max. 60 l/min	no seals 1 kW, max. 6 bar max. 60 l/min	
Cooling water conn.	G 1/4" + G 3/8"	G 3/8"		
Mold connection	G 3/4"			
Power supply	standard 3 x 380 – 415 V/50 Hz			



TEMPRO plus 250

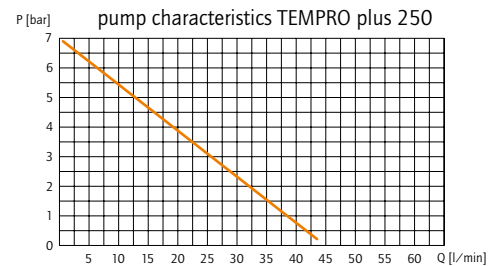
- **With Thermo-oil**
Perfect quality up to 250 °C.
- **Precision Control**
Microprocessor controlled until ± 1 °C accuracy.
- **User Friendly Simplistic Display**
- **Double Level Control**
Refill warning, automatic switch-off.
- **Process Pressure Gauges Standard**
- **Line Evacuating for Mold Purge**
- **Magnetically Coupled Pump Without Seal**



- Standard equipment
- Optional equipment
- no supply for this model

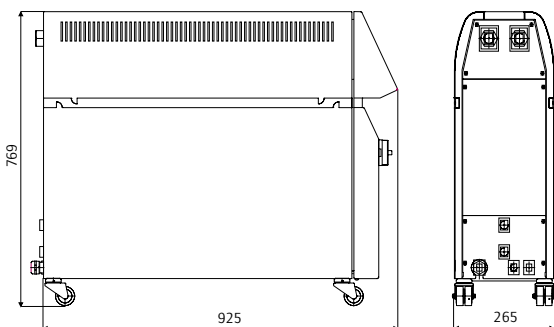
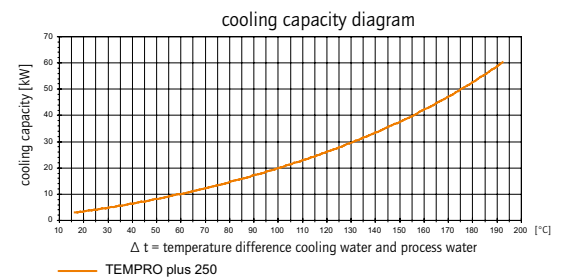
TEMPRO plus 250

Microprocessor controller, self-optimizing	•
Maximum temperature monitoring	•
Automatic heater control (max. heating power 12 kW)	•
Process pressure gauges standard	•
Level control max./min. (message for refilling/safety switch off)	•
Safety temperature limiter	•
Automatic pump rotation direction detection	•
Serial interface (RS 232, RS 485, 20mA)	◦
Socket for external sensor FeCo, type J	◦
Magnetically coupled pump without seal	•
Automatic venting of system pressure	•
Line evacuating for mold changing	•
Sensor break monitoring	•
Back flow sensor	•
Socket for external sensor PT 100	•
Dry contact for alarm output plus audible alarm	•
Operating hour counter, indication of several intervals	•



Technical Data

Heating capacity	max. 12 kW
Pump capacity (50 Hz)	1 kW, max. 7 bar, max. 45 l/min
Cooling water connection	G 1 1/2"
Mold connection	G 3/4"
Power supply	standard 3 x 380 – 415 V/50 Hz



TEMPRO plus XL 90

Water Units

WITTMANN's TEMPRO plus XL 90 can heat up even big molds within a short time to the required set point. Besides the strong heater (36 kW) we have reinforced flow (up to 200 l/min) and cooling capacity.

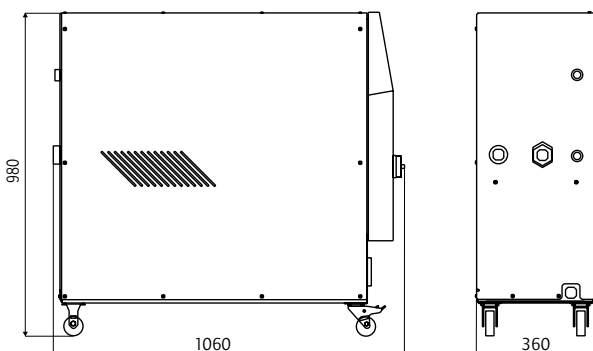
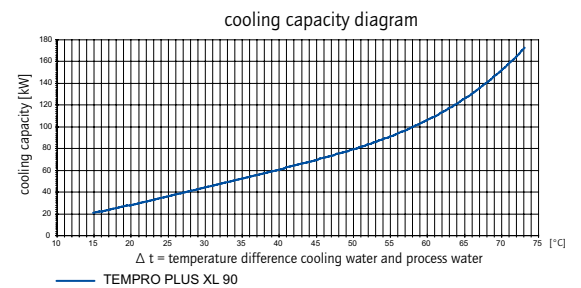
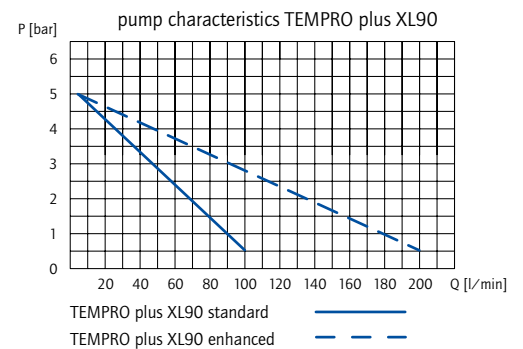
Purge out of molds is supported by an additional pump which pumps the water to the return line or drain. Thus the purge volume is increased.



- Standard equipment
- Optional equipment
- no supply for this model

TEMPRO plus XL 90	
Microprocessor controller, self-optimizing	•
Maximum temperature monitoring	•
Sensor break monitoring	•
Automatic filling with leakage monitoring and level control	•
Dry contact for alarm output plus audible alarm	•
Connectors for external sensors (PT 100)	•
Leakstop function	•
Air purging for mold changes	•
Pressure gauge/flow indication	◦
Serial interface (RS 232, RS 485, 20 mA)	◦
Operating hour counter	•
Horn	•

Technical Data	
Heating capacity	18 kW (option: 36 kW)
Pump standard T1001-50/60 Hz	2.2 kW, max. 5 bar, max. 100 l/min
Pump enhanced T2001-50/60 Hz	2.8 kW, max. 5 bar, max. 200 l/min
Cooling water connection	G 3/4"
Mold connection	G 1 1/4"
Power supply	standard 3 x 380 – 415 V/50 Hz



TEMPRO primus C90/basic C90/basic C140

— The Economic Solution

The ideal temperature controller for any application requiring exact temperature control and high user-friendliness, however without additional functions such as direct cooling.

— TEMPRO primus C90

Single zone temperature controller up to 90 °C. Standard features include air purging for mold changes.

— TEMPRO basic C90

One circuit temperature controller for temperatures up to 90 °C equipped with a self-optimizing microprocessor controller (± 1 °C). Standard with leakstop function and hand selector switch for evacuating function.

— TEMPRO basic C140

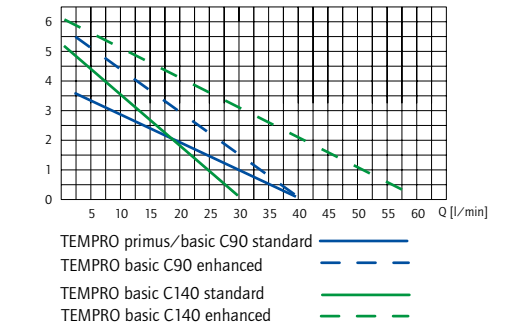
Single zone unit with pressurized system for temperatures up to 140 °C. The economic mold temperature controller for precise temperature control up to 140 °C.



TEMPRO basic/primus	primus C90	basic C90	basic C140
Microprocessor controller, self-optimizing	•	•	•
Maximum temperature monitoring	•	•	•
Sensor break monitoring	•	•	•
Automator filling with leakage monitoring and level control	•	•	•
Dry contact for alarm output	–	•	•
Connectors for external sensors	–	◦	◦
Leakstop function	•	•	•
Air purging for mold changes	•	•	•
Reinforced pump	–	◦	◦
Manual filling	•	•	–
Pressure gauge/flow indication	–	◦	◦
Serial interface (RS 232, RS 485, 20 mA)	–	◦	◦
Operating hour counter	•	•	•
Horn	•	•	•

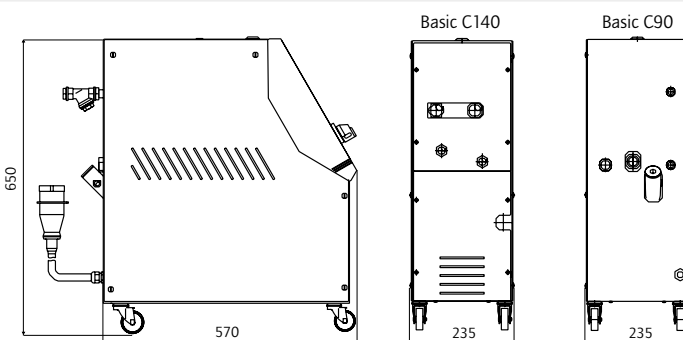
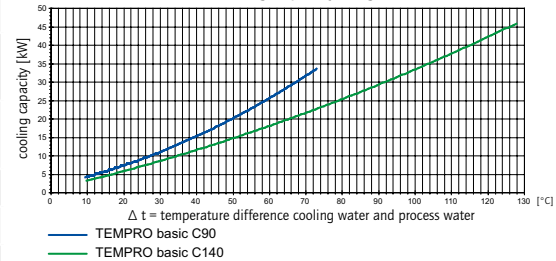
- Standard equipment
- Optional equipment
- no supply for this model

P [bar] pump characteristics TEMPRO primus/basic C90/C140



Technical Data	TEMPRO primus C90	TEMPRO basic C90	TEMPRO basic C140
Heating capacity	9 kW		
Pump capacity (50 Hz) Standard	0.5 kW, max. 3.5 bar, max. 40 l/min		0.5 kW, max. 5 bar max. 30 l/min
Pump capacity (50 Hz) enhanced	–	0.75 kW, max. 5.5 bar max. 40 l/min	0.75 kW, max. 6 bar max. 60 l/min
Cooling water connect.	G 1/4"		G 3/8"
To mold – from mold	G 3/4" / G 1/2"		G 3/4"
Power supply	standard 3 x 380 – 415 V/50 Hz		

cooling capacity diagram



TEMPRO direct C120

Equipped with a self-optimizing microprocessor controller ($\pm 1\text{ }^{\circ}\text{C}$) for temperatures up to $120\text{ }^{\circ}\text{C}$. Powerful pumps (pressure up to 6 bar) guarantee a high flow of process water and thus a short preheating time and because of its direct cooling design, a high cooling capacity.

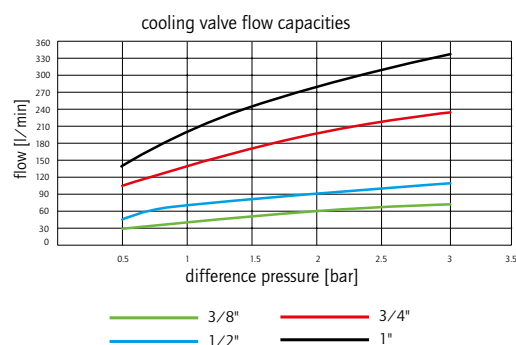
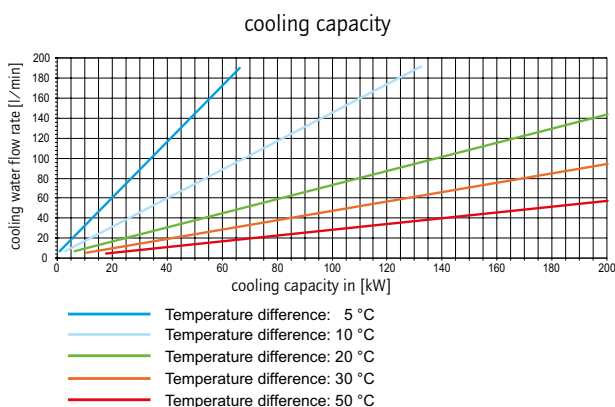
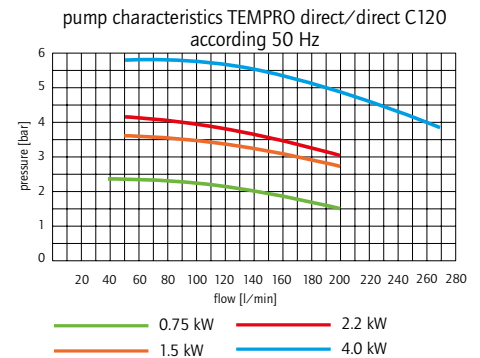
Developed specially for big consumer. Equipped with radial pumps for high flow at different pressure range. An economic mold temperature controller with high user-friendliness and extensive possibility of equipment for every application.



TEMPRO direct	C120
Microprocessor controller, self-optimizing	•
Maximum temperature monitoring	•
Sensor break monitoring	•
Automator filling with pressure monitoring	•
Dry contact for alarm output + audible alarm	○
Connector for external sensor (PT 100)	○
Air purging for mold changes	○
Enhanced pump	—
Pump made of bronze	○
Pressure gauges in pump advance and return flow	•
Serial interface (RS 232, RS 485, 20mA)	○
Operating hour counter	•
Horn	•
Options: cooling valves	G1/2", G3/4", G1"

- Standard equipment
- Optional equipment
- no supply for this model
- * Also available without slip ring seal (magnetically coupled)

TEMPRO direct	C120		
Technical Data	C120		
Heating capacity	9 kW (optional 18 kW)		
Pump capacity Standard	0.75 kW, max. 2.35 bar max. 200 l/min		
Pump capacity enhanced (max. bar/max. l/min)	1.5 kW 3.65 bar 200 l/min	2.2 kW 4.25 bar 200 l/min	4 kW 5.9 bar 280 l/min
Dimensions (w/h/d)	350 x 800 x 750		
Cooling water connect.	G 1"		
Mold connection	G 1 1/2"		
Standard cooling valve	G 3/8"		
Power supply	standard 3 x 380 – 415V/50 Hz		





Technology working for you.

WITTMANN Kunststoffgeräte GmbH

Lichtblaustrasse 10

1220 Vienna | Austria

Tel.: +43 1 250 39 0 | Fax: +43 1 259 71 70

info.at@wittmann-group.com

www.wittmann-group.com