

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 D140/160/180)

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.

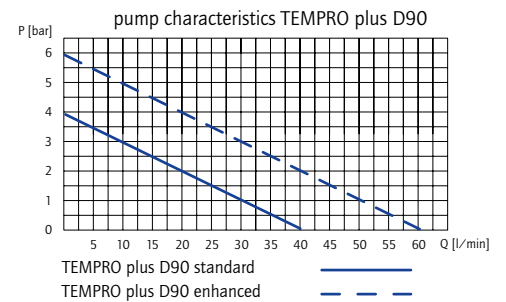
TEMPRO plus D40/160/180

- For temperatures up to 140 °C, 160 °C and 180 °C.
- Pressurized system with powerful pumps and with magnetically coupled pumps for TEMPRO plus D140/160/180.

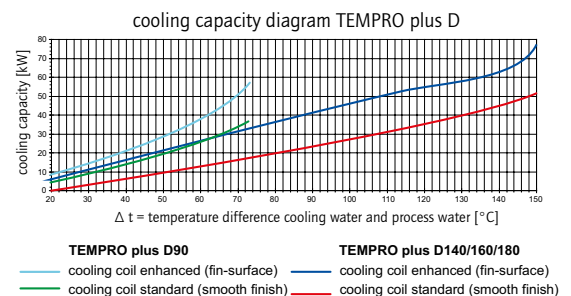
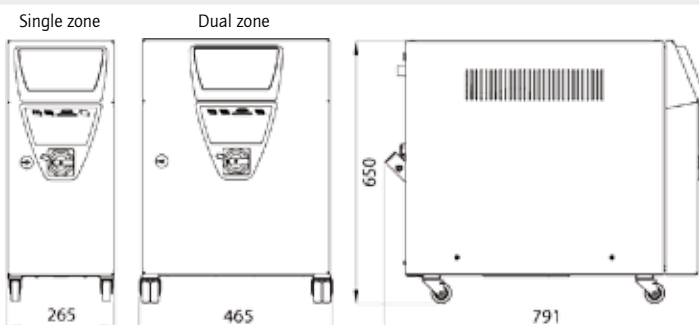
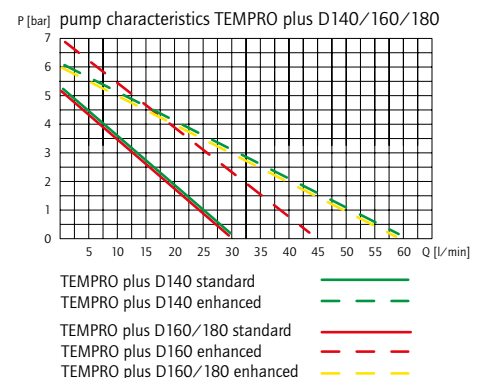


- Standard equipment
- Optional equipment
- no supply for this model

Equipment	90	140	160	180
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 PT 100	•	•	•	•
Connector for external mold sensor FeCo Type J	◦	◦	◦	◦
Leakstop function	•	◦	◦	–
Mold purging through pump rotation change (max. 3 l)	•	–	–	–
Mold purging through pump rotation change (unlimited)	–	•	•	•
Enhanced pump [1 = magnetically coupled]	◦	◦ ¹	◦ ¹	◦ ¹
Pressure measuring (system, pump, and flow pressure)	•	•	•	•
Flow measuring [1 = vortex, 2 = ultrasonic]	◦ ¹	◦ ²	◦ ²	–
Boost pump [2 = two pumps]	–	•	•	• ²
Serial interface (RS 232, RS 485, 20 mA, CAN, SPI)	◦	◦	◦	◦
Operating hour counter/clock timer/service monitoring	•	•	•	•
Variotherm tempering	–	–	–	◦



Technical Data	90	140	160/180
TEMPRO plus D	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	magnetically coupled 0.5 kW, max. 4.5 bar max. 40 l/min	magnetically coupled 0.5 kW, max. 5 bar 30 l/min
Pump capacity (50 Hz) enhanced	1 kW, max. 5.8 bar max. 60 l/min	magnetically coupled 1 kW, max. 6 bar max. 60 l/min	magnetically coupled 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

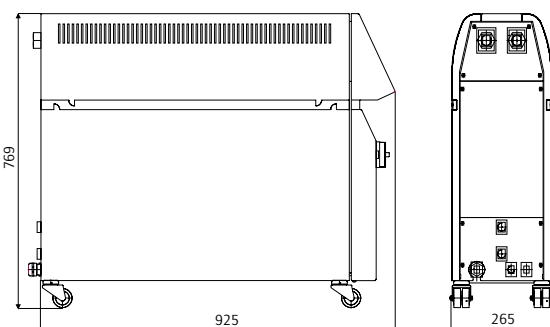
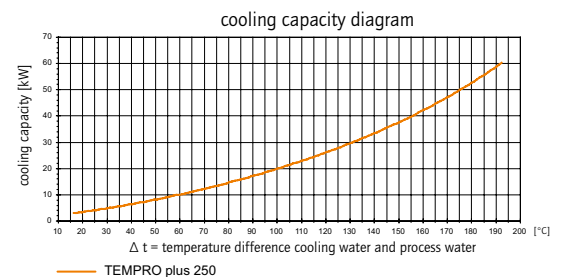
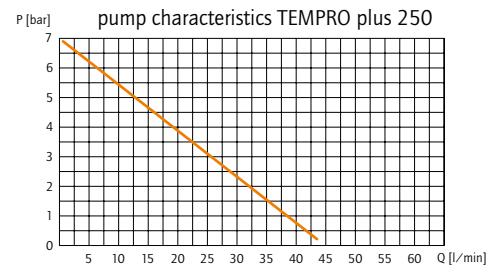
- **With Thermo-oil**
Perfect quality up to 250 °C.
- **Precision Control**
Microprocessor controlled until ± 1 °C accuracy.
- **User Friendly Simplistic Display**
- **Double Level Control**
Refill warning, automatic switch-off.
- **Process Pressure Gauges Standard**
- **Line Evacuating for Mold Purge**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



Equipment	
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 PT 100	•
Socket for external mold 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	•
Dry contact for alarm output plus audible alarm	•
Operating hour counter, indication of several intervals	•

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

Technical Data	
TEMPRO plus 250	
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

Equipment

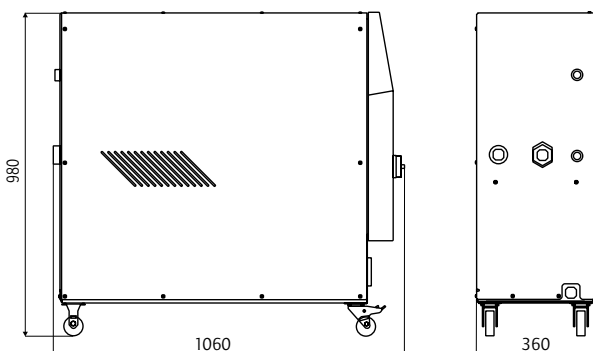
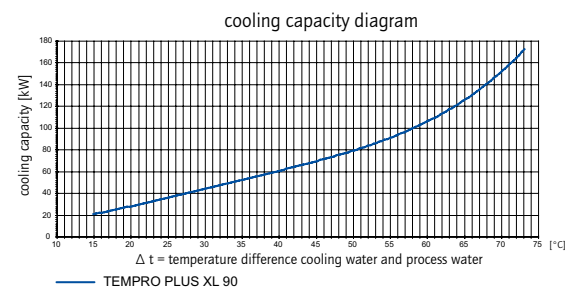
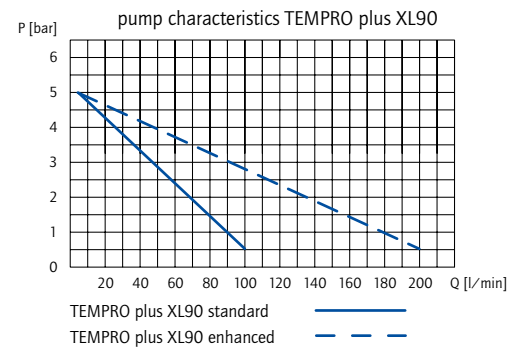
TEMPRO plus XL 90

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	•
Connector for external sensors PT 100	•
Connector for external mold sensor FeCo Type J	◦
Leakstop function	•
Air purging for mold changes	•
Pressure gauge/flow indication	◦
Serial interface (RS 232, RS 485, 20 mA)	◦
Operating hour counter/Service monitoring	•

Technical Data

TEMPRO plus XL 90

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

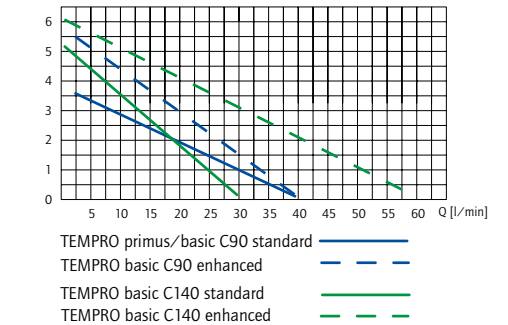
Single zone unit with pressurized system for temperatures up to 140 °C. The economic mold temperature controller for precise temperature control up to 140 °C.



Equipment	primus C90	basic C90	basic C140
Microprocessor controller, self-optimizing	•	•	•
Maximum temperature monitoring	•	•	•
Sensor break monitoring	•	•	•
Automator filling with leakage monitoring and level cont.	•	•	•
Dry contact for alarm output	–	•	•
Connectors for external sensors PT 100	–	◦	◦
Leakstop function	•/◦	•	•
Mold purging through pump rotation change	◦/•	•	•
Reinforced pump	–	◦	◦
Manual filling	•	•	–
Pressure gauge/flow indication	–	◦	◦
Serial interface (RS 232, RS 485, 20 mA)	–	◦	◦
Analog interface (4–20 mA / 0–10 V)	–	◦	◦
Operating hour counter/Service monitoring	•	•	•
Horn	•	•	•

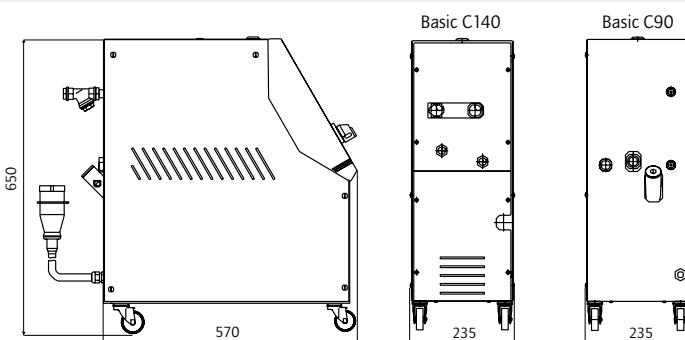
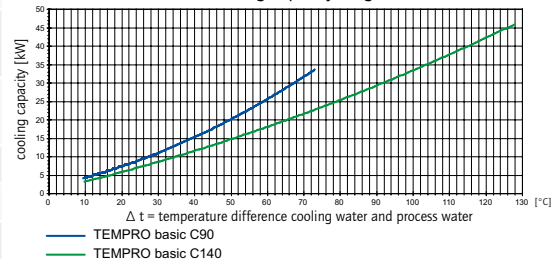
- Standard equipment
- Optional equipment
- no supply for this model

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



Technical Data	primus C90	basic C90	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 primus C120/direct C120

The TEMPRO primus C120 is used for temperatures up to 120 °C. Due to direct injection of the cooling water, it is providing an exceptionally high cooling capacity.

The TEMPRO direct C120 was designed for the special requirements of specific applications. It is equipped with radial pumps for high flow volumes at different pressure ranges: an economic mold temperature controller series with high user-friendliness and an extensive equipment range for every application.



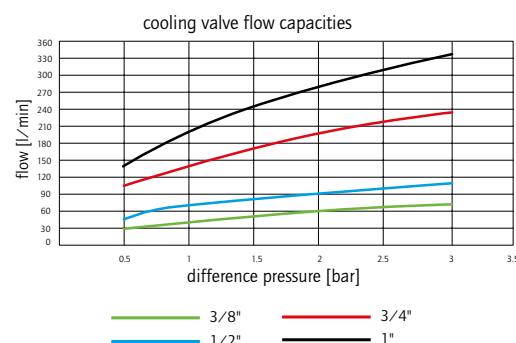
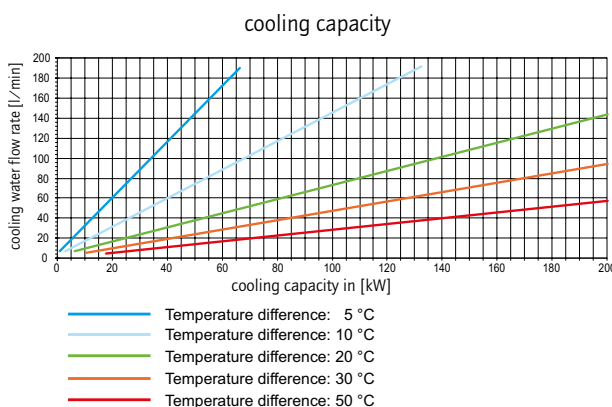
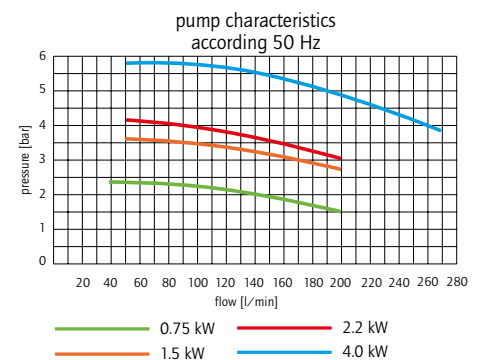
TEMPRO primus C120



TEMPRO direct C120

Equipment		
TEMPRO	primus C120	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	–	◦
Mold purging through pressurized air	–	◦
Enhanced pump	–	◦
Pump made of bronze	–	◦
Pressure gauges in pump advance and return flow	•	•
Serial interface (RS 232, RS 485, 20mA)	–	◦
Analog interface (4–20 mA / 0–10 V)	–	◦
Operating hour counter/Service monitoring	•	•
Horn	•	•
Options: cooling valves	–	G1/2", G3/4", G1"

Technical Data			
TEMPRO	primus C120	direct C120	
Heating capacity	9kW	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
Dimensions (w/h/d)	227 x 660 x 600	350 x 800 x 750	
Cooling water connect.	G 3/4"	G 1"	
Mold connection	G 1 1/4"	G 1 1/2"	
Standard cooling valve		G 3/8"	
Power supply		standard 3 x 380 – 415 V/50 Hz	





Technology working for you.

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