

PRESTO W50

Heating a 50 liters reactor from +20 °C to +150 °C

Objective

This case study tests the heating power of PRESTO W50 with a 50 liters glass reactor. The PRESTO W50 is connected to the reactor via two 2 m metal tubings. The PRESTO W50 is programmed to heat up from +20 °C to +150 °C.

Environment

Room temperature +20 °C
 Humidity 45%
 Voltage 400 V / 50 Hz

Test Conditions

JULABO unit	PRESTO W50
Cooling power	+20 °C 7.5 kW 0 °C 6.5 kW -20 °C 3.0 kW
Heating capacity	6 kW
Band limit	without
Flow pressure	0.5 bar
Bath fluid	Thermal HL60
Reactor	50 liters glass reactor (QVF) filled with 35 l Thermal HL60
Jacket volume	26.5 l
Control	External (ICC)

Control Parameters

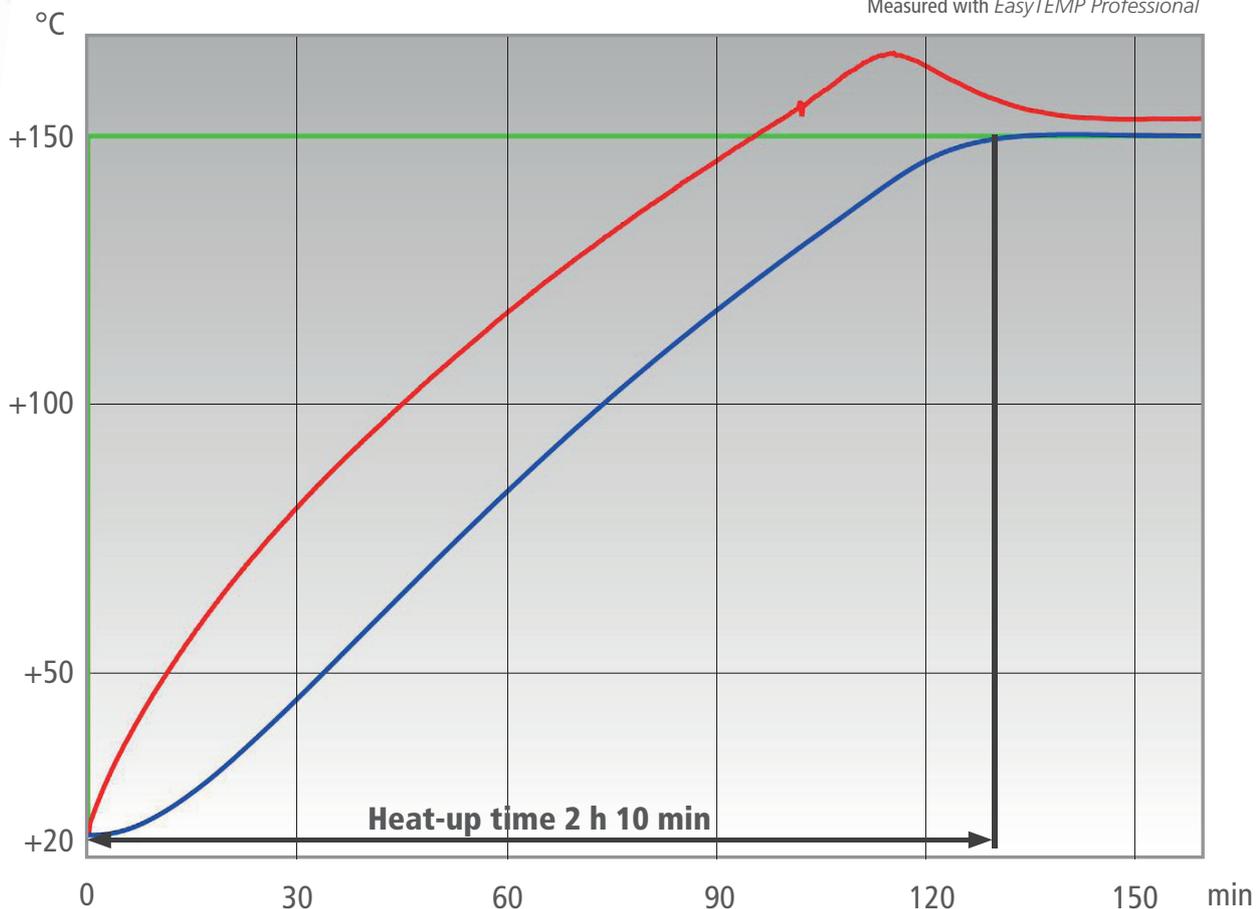
Xp	0.2 K
Tn	695 s
Tv	85 s
Xpu	15 K



Test Results

The PRESTO W50 heating process from +20 °C to +150°C in 2 h 10 min without overshoot.

Measured with *EasyTEMP Professional*

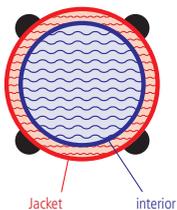


- Setpoint
- Temperature in reactor's interior
- Temperature in reactor's jacket

Tip

Protect your reactor. The function "band limit" (see above) permits setting the max. temperature difference between jacket and internal vessel.

Profile of reactor



Tip

You can also use the robust Pt100 with PTFE coating.

