PRESTO W50

Heating a 50 liters reactor from -40 °C to +20 °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 -40 °C to +20 °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)

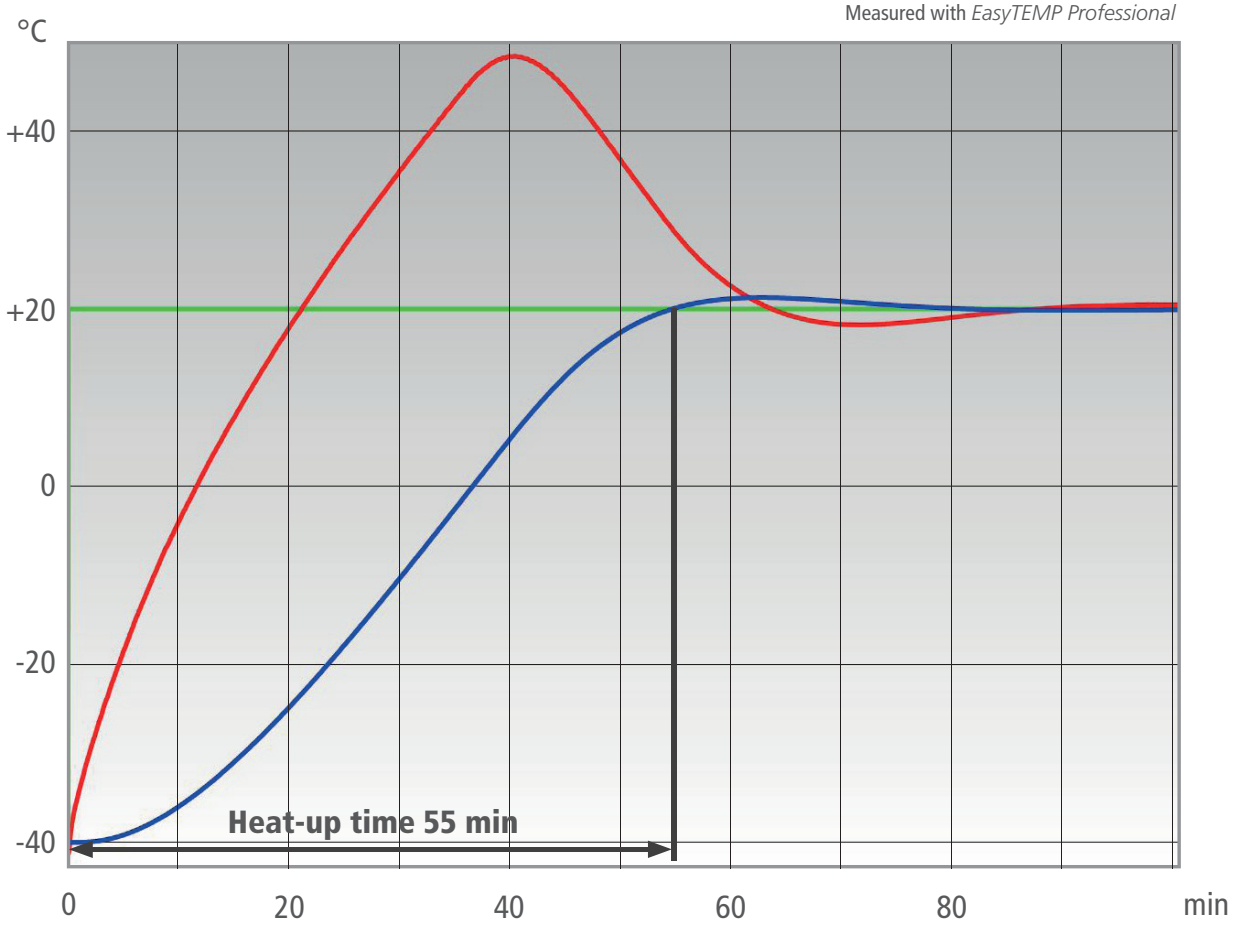
Control Parameters

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

Test Results

The PRESTO W50 heating process from -40 °C to +20°C in 55 min without overshoot.

Measured with *EasyTEMP Professional*



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

Tip

Take advantage of our wide range of accessories. The M+R adapter enables you to display and record an additional temperature.

Tip

Use the free of charge *EasyTEMP* software to control the units with the PC and to show the temperature curves graphically.