

PRESTO® W92tt

Heating a 100 liters reactor from -80 °C to +20 °C

Objective

This case study tests the heating power of PRESTO® W92tt with a 100 liters glass reactor. The PRESTO® W92tt is connected to the reactor via two 3 m metal tubings. The PRESTO® W92tt is programmed to heat up from -80 °C to +20 °C.

Environment

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

Test Conditions

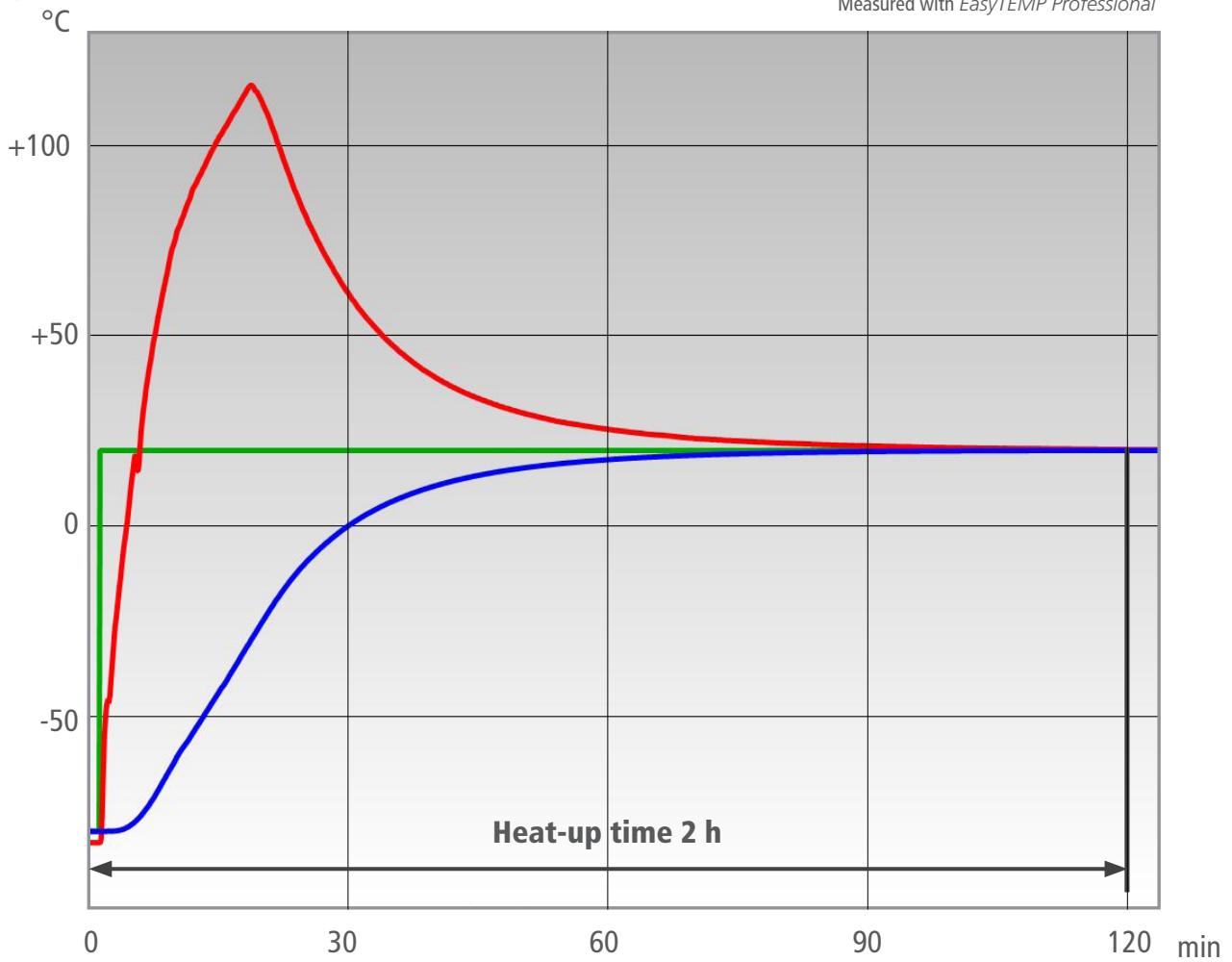
JULABO unit	PRESTO® W92tt
Cooling power	+20 °C 19 kW 0 °C 15.5 kW -20 °C 9.5 kW
Heating capacity	36 kW
Band limit	with
Flow pressure	0.5 bar
Bath fluid	Thermal HL80
Reactor	100 liters glass reactor (Büchiglas) filled with 70 l Ethanol
Jacket volume	30 l
Control	External (ICC)



Test Results

The PRESTO® W92tt heating process from -80 °C to +20°C in 2 h 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
Take advantage of our wide range of accessories. The M+R adapter enables you to display and record an additional temperature.