

Julabo Case Study

JULABO Presto A30

Cooling and heating a 1.3 litre reactor
between +100 °C and -20 °C



Objective

This case study tests the heating and cooling power of JULABO Presto A30 with a 1.3 litre glass reactor. The A30 is connected to the reactor with two 1.0 m metal tubings. The A30 is programmed to cycle between +100 °C and -20 °C.

Test Conditions

JULABO unit	JULABO Presto A30
Cooling power	+20 °C 0.5 kW
	0 °C 0.4 kW
	-20 °C 0.2 kW
Heating capacity	2.8 kW
Band limit	no
Pump pressure	0.31 bar
Bath fluid	JULABO Thermal HL45
Reactor	1.3 liter glass reactor filled with 1 liter JULABO Thermal HL45
Control	external (ICC)

Environment

Ambient temperature	20 °C
Humidity	45 %
Voltage	230 V / 50 Hz



Test Results

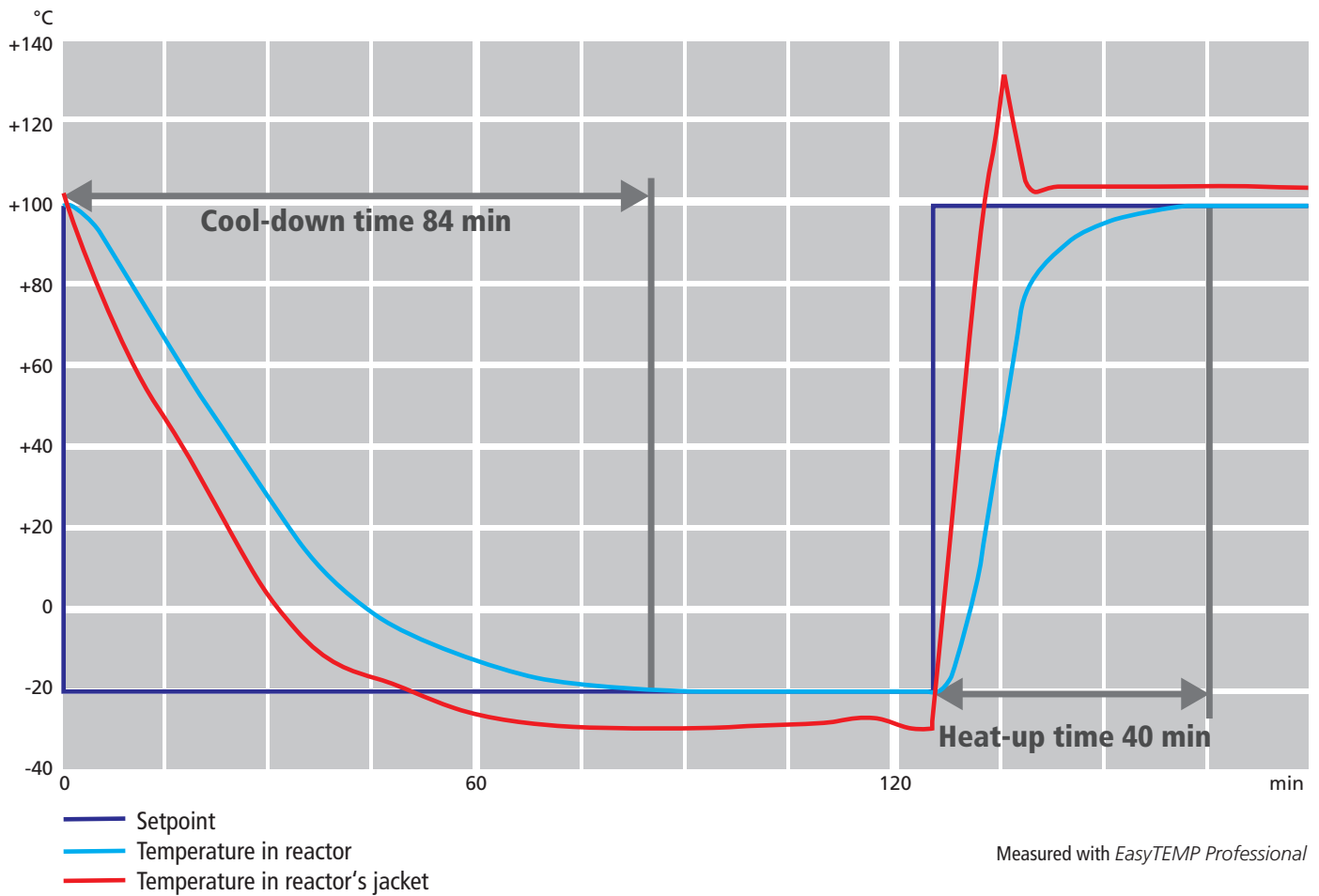
See chart on next page: The A30 cools the process from +100 °C to -20 °C in 84 min. Hitting exactly -20 °C without overshoot. The heating process from -20 °C to +100 °C in 40 min. Hitting exactly +100 °C without overshoot.

Tip

Use robust Pt100 sensors with Teflon coating.



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