Julabo Case Study

JULABO Presto A30

Cooling and heating a 5.5 liters reactor between +20 °C and -20 °C

Objective

This case study tests the heating and cooling power of JULABO Presto A30 with a 5.5 liters glass reactor. The A30 is connected to the reactor with two 1.0 m metal tubings. The A30 is programmed to cycle between +20 °C and -20 °C.

Environment

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

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	2.7 kW
Band limit	no
Flow pressure	0.31 bar
Bath fluid	JULABO Thermal HL45
Reactor	5.5 liters glass reactor (Bruno Kummer)
	filled with 5 l Thermal HL45
Control	external (ICC)

Test Results

See chart on back page: The A30 heating process from -20 °C to +20 °C in 1 h. Hitting exactly +20 °C without overshoot. The cooling process from +20 °C to -20 °C in 1 h 15 min. Hitting exactly -20 °C without overshoot.

Tip

Elbow fittings 90° helps relieving the connectors of the glass reactor.

More tips on back page >>

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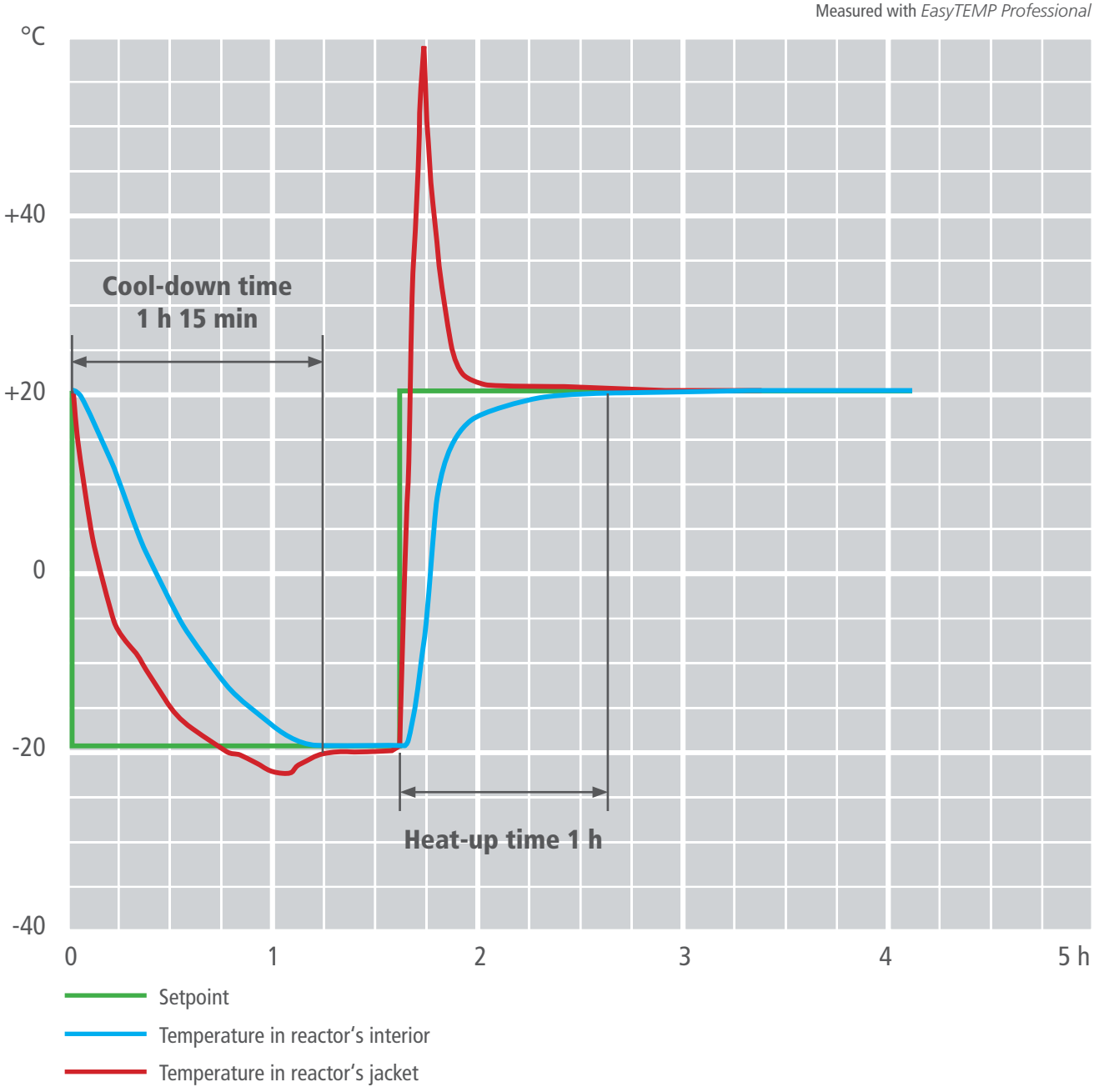
Julabo
THE TEMPERATURE CONTROL COMPANY

Measured with *EasyTEMP Professional*

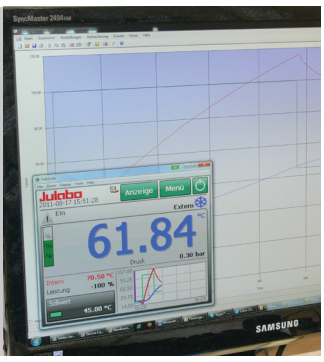


Tip

You can also use the robust Pt100 sensor with PTFE coating.

Tip

The Ethernet interface permits full access to all operational functions of the PRESTO®.



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