

# Julabo Case Study

## JULABO PRESTO® A40

Cooling a 20 liters reactor  
from +170 °C to -20 °C



### Objective

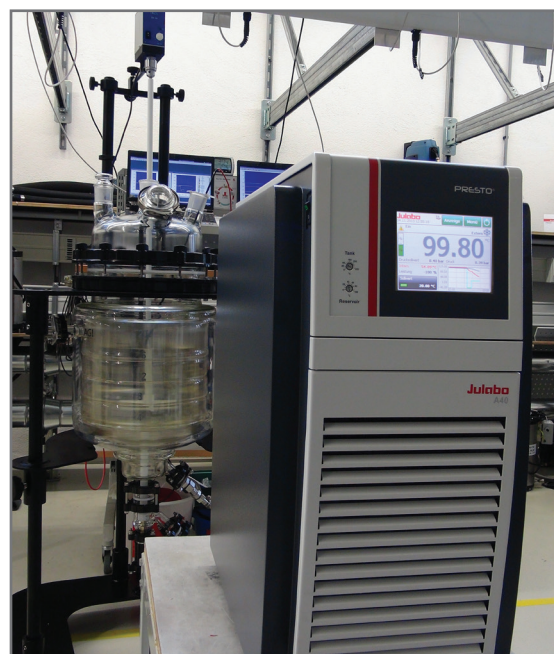
This case study tests the cooling power of JULABO PRESTO® A40 with a 20 liters vacuum insulated glass reactor. The A40 is connected to the reactor via two 2.0 m metal tubings. The A40 is programmed to cool down from +170 °C to -20 °C.

### Test Conditions

JULABO unit	JULABO PRESTO® A40
Cooling power	+20 °C 1.2 kW
	0 °C 0.9 kW
	-20 °C 0.6 kW
Heating capacity	2.7 kW
Band limit	No
Flow pressure	0.40 bar
Bath fluid	JULABO Thermal HL40
Reactor	Triple walled 20 liters glass reactor (Asahi) filled with 18 liter JULABO Thermal HL40
Jacket volume	7.0 l
Control	External (ICC)

### Environment

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



### Test Results

See chart on back page: The A40 cooling process from +170 °C to -20 °C in 3 h 30 min without overshoot.

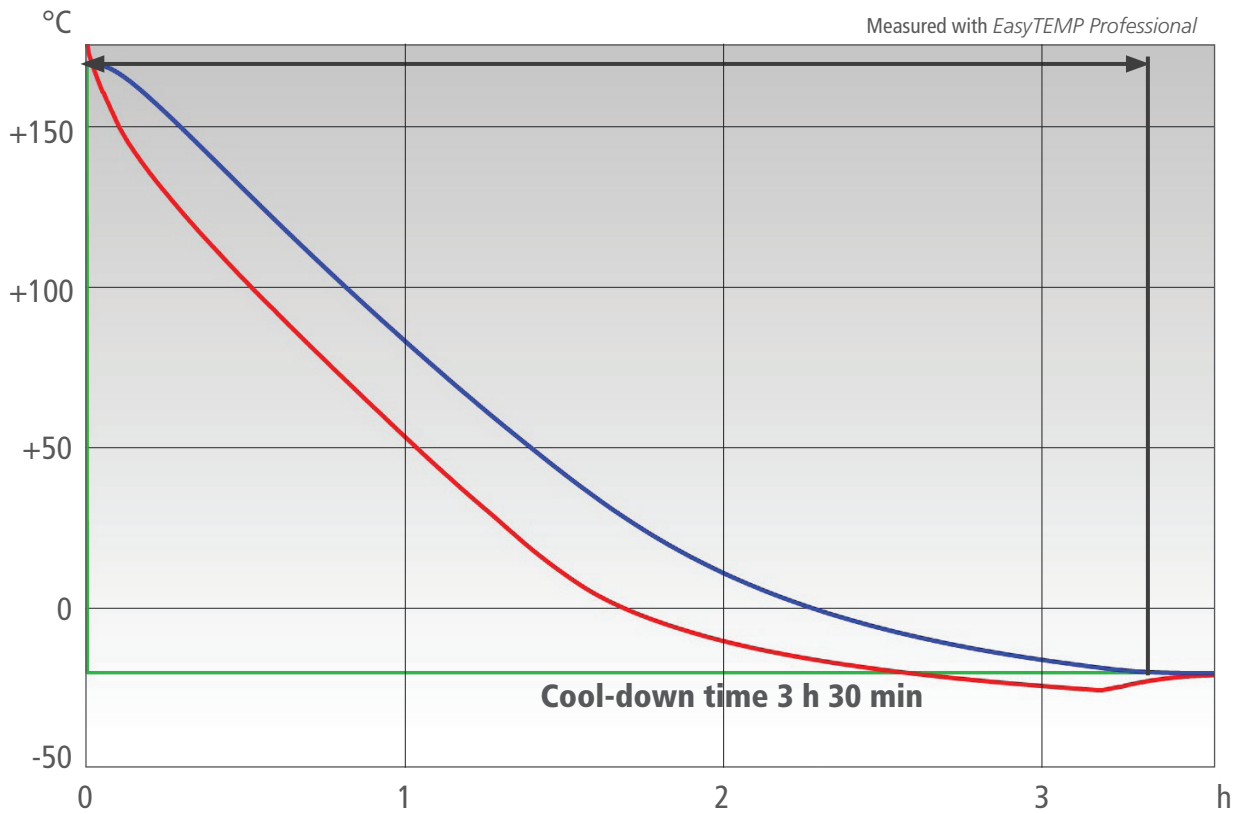
### Tip

You can also use the robust Pt100 with PTFE coating.

More tips on back page >>



JULABO GmbH  
Eisenbahnstraße 45  
77960 Seelbach / Germany  
Tel. +49 (0) 7823 51-0



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

**Tip**

Make use of the option to regulate the pump pressure. You can define the desired pressure in the PRESTO® settings.



**Tip**

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



JULABO GmbH  
 Eisenbahnstraße 45  
 77960 Seelbach / Germany  
 Tel. +49 (0) 7823 51-0