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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Cool-down time 84 min
Heat-up time 40 min

Measured with EasyTEMP Professional