**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.

**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)

**Environment**
- **Room temperature**: +20 °C
- **Humidity**: 45 %
- **Voltage**: 230 V / 50 Hz

**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 >>
Cool-down time 1 h 15 min

Heat-up time 1 h

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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