PRESTO™ A80t

Heating a 20 liters reactor from +20 °C to +100 °C

Objective
This case study tests the heating power of PRESTO™ A80t with a 20 liters glass reactor. The PRESTO™ A80t is connected to the reactor via two 1 m metal tubings. The PRESTO™ A80t is programmed to heat up from +20 °C to +100 °C.

Environment
- Room temperature: +20 °C
- Humidity: 45%
- Voltage: 208 V / 60 Hz

Test Conditions
- JULABO unit: PRESTO™ A80t
- Cooling power:
  - +20 °C: 1.2 kW
  - 0 °C: 1.2 kW
  - -20 °C: 1.1 kW
- Heating capacity: 3.4 kW
- Band limit: with
- Flow pressure: 0.5 bar
- Bath fluid: Thermal HL80
- Reactor: 20 liters glass reactor (Asahi) filled with 19 l Thermal HL80
- Jacket volume: 7 l
- Control: External (ICC)
**Test Results**

The PRESTO™ A80t heating process from +20 °C to +100°C in 1 h 15 min without overshoot.

![Graph showing heating process](image)

- **Tip**
  - Protect your reactor. The function “band limit” (see above) permits setting the max. temperature difference between jacket and internal vessel.

- **Tip**
  - Use the free of charge *EasyTEMP* software to control the units with the PC and to show the temperature curves graphically.