**PRESTO™ A80t**

**Heating a 20 liters reactor from -40 °C to +20 °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 -40 °C to +20 °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 -40 °C to +20°C in 1 h without overshoot.

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

**Tip**

Take advantage of our wide range of accessories. The M+R adapter enables you to display and record an additional temperature.

**Tip**

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