Objective
This case study tests the heating and cooling power of JULABO PRESTO® W92tt with a 100 liters glass reactor. The W92tt is connected to the reactor via two 2.0 m metal tubings. The W92tt is programmed to cycle between -50 °C and +100 °C.

Test Conditions
JULABO unit | JULABO PRESTO® W92tt
---|---
Cooling power | +20 °C | 19.0 kW
| | 0 °C | 15.5 kW
| | -20 °C | 9.5 kW
Heating capacity | 36 kW
Band limit | 70 K
Flow pressure | 0.33 bar
Bath fluid | JULABO Thermal HL80
Reactor | 100 liters glass reactor (Büchiglas)
| filled with 100 liters Thermal HL80
Control | External (ICC)

Test Results
See chart on back page: The W92tt heats up the reactor from -50 °C to +100 °C in 3 h 30 min. 100 °C are hit without overshoot. The W92tt cools down the reactor from +100 °C to -50 °C in 2 h 50 min. -50 °C are hit without overshoot.

Environment
Room temperature | +20 °C
Humidity | 45 %
Voltage | 3 x 400 V / 50 Hz

Tip
You can also use the robust Pt100 with PTFE coating.

More tips on back page >>
Cool-down time 2 h 50 min

Heat-up time 3 h 30 min

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

Switch-over from 1-stage to 2-stage cascade operation for lower temperatures – without effect on the temperature within the application.

Upper band limit

The band limit protects your application. The band limit bottom and the band limit top can be set separately.

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®.