# Juliaho Case Study

## **JULABO PRESTO® W92tt**

Cooling and heating a 100 liters reactor between -50 °C and +100 °C



### **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)

#### **Environment**

Room temperature +20 °C Humidity 45 %

Voltage 3 x 400 V / 50 Hz



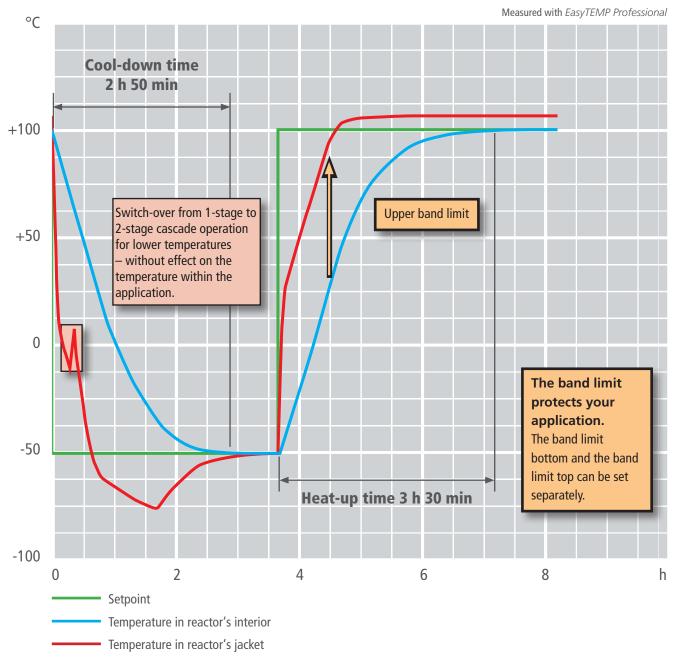
#### **Test Results**

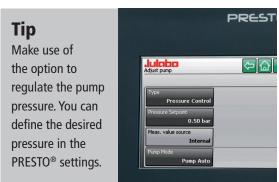
See chart on back page: The W92tt heats up the reactor from -50 °C to +100 °C in 3 h 30 min. 100 °C are hit without overshoot. The W92tt cools down the reactor from +100 °C to -50 °C in 2 h 50 min. -50 °C are hit without overshoot.

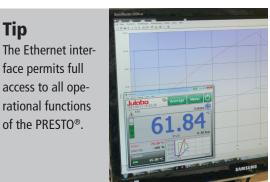


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