

PRESTO® A80t

Cooling a 20 liters reactor from +20 °C to -20 °C

Objective

This case study tests the cooling 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 cool down from +20 °C to -20 °C.



Environment

Room temperature +20 °C Humidity 45 %

Voltage 208 V / 60 Hz

Test Conditions

JULABO unit PRESTO® A80t Cooling power $+20 \,^{\circ}\text{C}$ 1.2 kW $0 \,^{\circ}\text{C}$ 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 l glass reactor (Chemglass)

filled with 19 I Ethanol

Jacket volume 8 l

Control External (ICC)

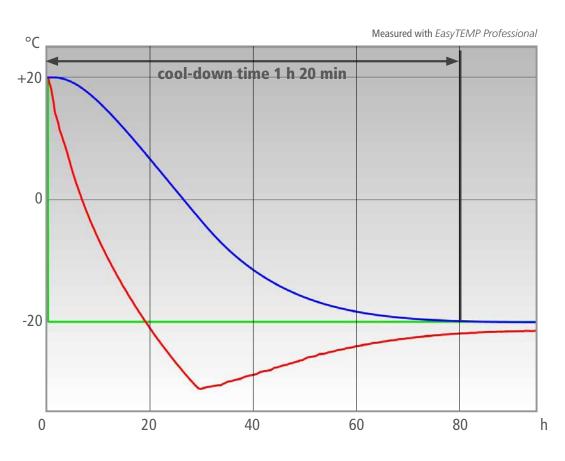






Test Results

The PRESTO® A80t cooling process from +20 °C to -20 °C in 1 h 20 min without overshoot.



Setpoint
Temperature in reactor's interior
Temperature in reactor's jacket

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

