

PRESTO W50

Cool-down a 50 liters reactor from +20 °C to lowest possible temperature

Objective

This case study tests the lowest possible temperature of the PRESTO W50 with a 50 liters glass reactor. The PRESTO W50 is connected to the reactor via 2 m metal tubings. The PRESTO W50 cools down from +20 °C to the lowest possible temperature.

Environment

Room temperature +20 °C Humidity 45 %

Voltage 400 V / 50 Hz



JULABO unit PRESTO W50 Cooling power $+20 \,^{\circ}\text{C}$ 7.5 kW $0 \,^{\circ}\text{C}$ 6.5 kW

-20 °C 3.0 kW

Heating capacity 6 kW
Band limit without
Flow pressure 0.5 bar
Bath fluid Thermal HL60

Reactor 50 l glass reactor (QVF)

filled with 35 I Thermal HL60

Jacket volume 26.5 l

Control External (ICC)

Control Parameters

Xp 0.2 K Tn 695 s Tv 85 s Xpu 15 K







Test Results

The PRESTO W50 cooled the reactor from +20 °C down to the lowest possible temperature in 7 h 30 min. Within these test conditions the lowest possible temperature is -44 °C.







