PRESTO W91t

Cool-down a 100 liters reactor from +20 °C to lowest possible temperature

Objective
This case study tests the lowest possible temperature of the PRESTO W91t with a 100 liters glass reactor. The PRESTO W91t is connected to the reactor via 3 m metal tubings. The PRESTO W91t cools down from +20 °C to the lowest possible temperature.

Environment
Room temperature 20 °C
Humidity 45 %
Voltage 480 V / 60 Hz

Test Conditions
JULABO unit PRESTO W91t
Cooling power +20 °C 11.0 kW
0 °C 10.0 kW
-20 °C 9.5 kW
Heating capacity 24 kW
Band limit without
Flow pressure 0.5 bar
Bath fluid Thermal P90
Reactor 100 l glass reactor (Ace Glass) filled with 70 l Ethanol
Jacket volume 30 l
Control External (ICC)

Control parameters
Xp 0.2 K
Tn 720 s
Tv 100 s
Xpu 24 K
Test Results

The PRESTO W91t cooled the reactor from +20 °C down to the lowest possible temperature in 7 h. Within these test conditions the lowest possible temperature is -84 °C.

Measured with EasyTEMP Professional

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.