

PRESTO W91

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 W91 with a 50 liters glass reactor. The PRESTO W91 is connected to the reactor via 2 m metal tubings. The PRESTO W91 cools down from +20 °C to the lowest possible temperature.

Environment

Room temperature +20 °C
 Humidity 45 %
 Voltage 400 V / 50 Hz

Test Conditions

JULABO unit	PRESTO W91
Cooling power	+20 °C 11 kW
	0 °C 10 kW
	-20 °C 9.5 kW
Heating capacity	12 kW
Band limit	without
Flow pressure	0.5 bar
Bath fluid	Thermal HL80
Reactor	50 l glass reactor (QVF) filled with 35 l Thermal HL80
Jacket volume	26.5 l
Control	External (ICC)

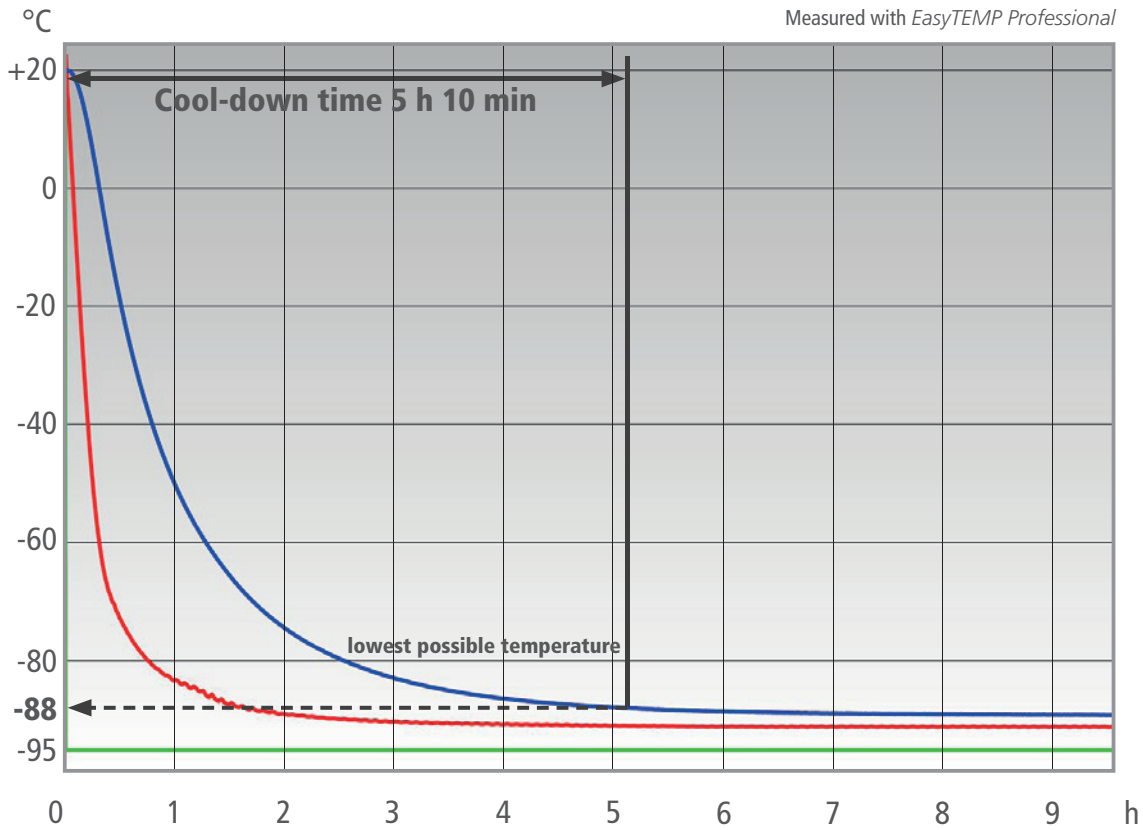
Control Parameters

Xp 0.2 K
 Tn 720 s
 Tv 100 s
 Xpu 24 K



Test Results

The PRESTO W91 cooled the reactor from +20 °C down to the lowest possible temperature in 5 h 10 min. Within these test conditions the lowest possible temperature is -88 °C.



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

Tip

You can also use the robust Pt100 with PTFE coating.



Tip

Use our tube adapters and your tubing will no longer kink.

