PRESTO® W92tt

Cooling a 100 liters reactor from +20 °C to 0 °C

Objective

This case study tests the cooling power of PRESTO® W92tt with a 100 liters glass reactor. The PRESTO® W92tt is connected to the reactor via two 3 m metal tubings. The PRESTO® W92tt is programmed to cool down from +20 °C to 0 °C.

Environment

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

Test Conditions

JULABO unit	PRESTO® W92tt	
Cooling power	+20 °C	19 kW
	0 °C	15.5 kW
	-20 °C	9.5 kW
Heating capacity	36 kW	
Band limit	with	
Flow pressure	0.5 bar	
Bath fluid	Thermal HL80	
Reactor	100 l glass reactor (Büchiglas) filled with 70 l Ethanol	
Jacket volume	30 l	
Control	External (ICC)	

Test Results

The PRESTO® W92tt cooling process from +20 °C to 0 °C in 40 min without overshoot.

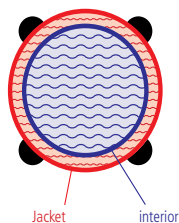Measured with *EasyTEMP Professional*

cool-down time 40 min
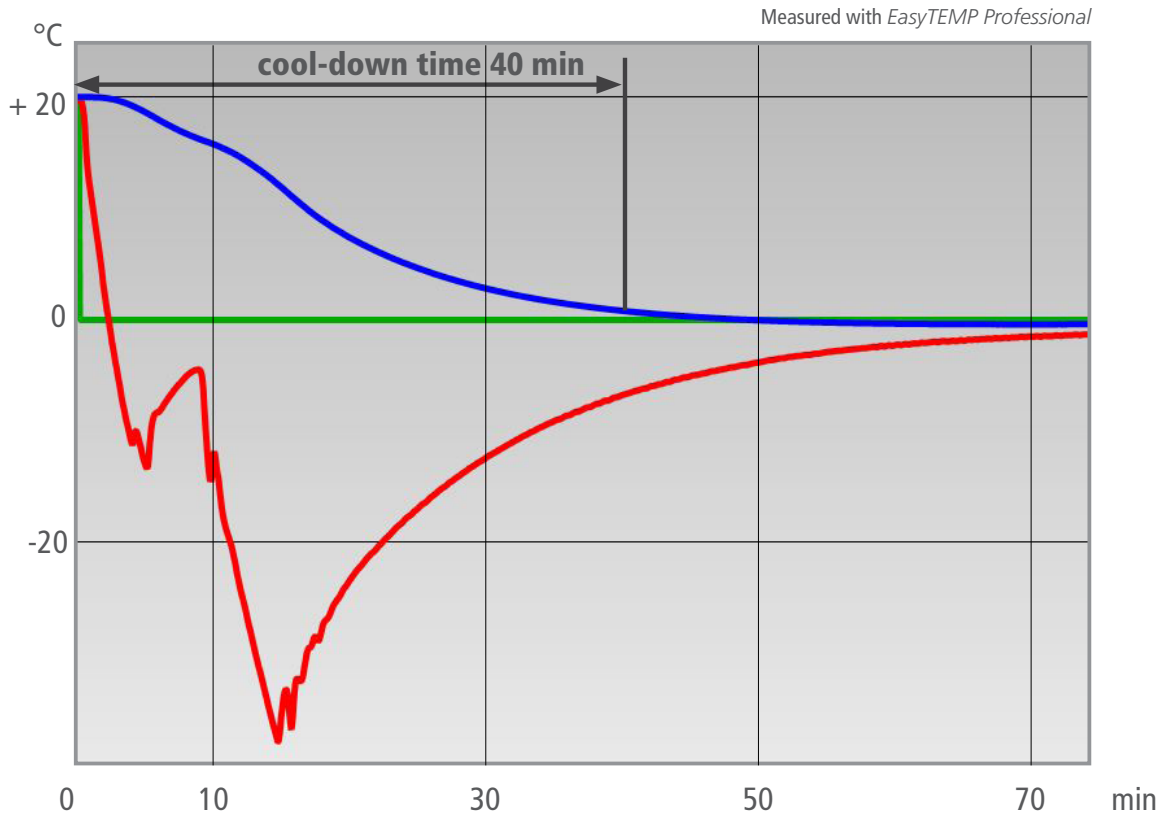
Setpoint
Temperature in reactor's interior
Temperature in reactor's jacket

Tip
Protect your reactor. The function „band limit" (see above) permits setting the max. temperature difference between jacket and internal vessel.

Profile of reactor

Jacket   interior

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