

## 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)

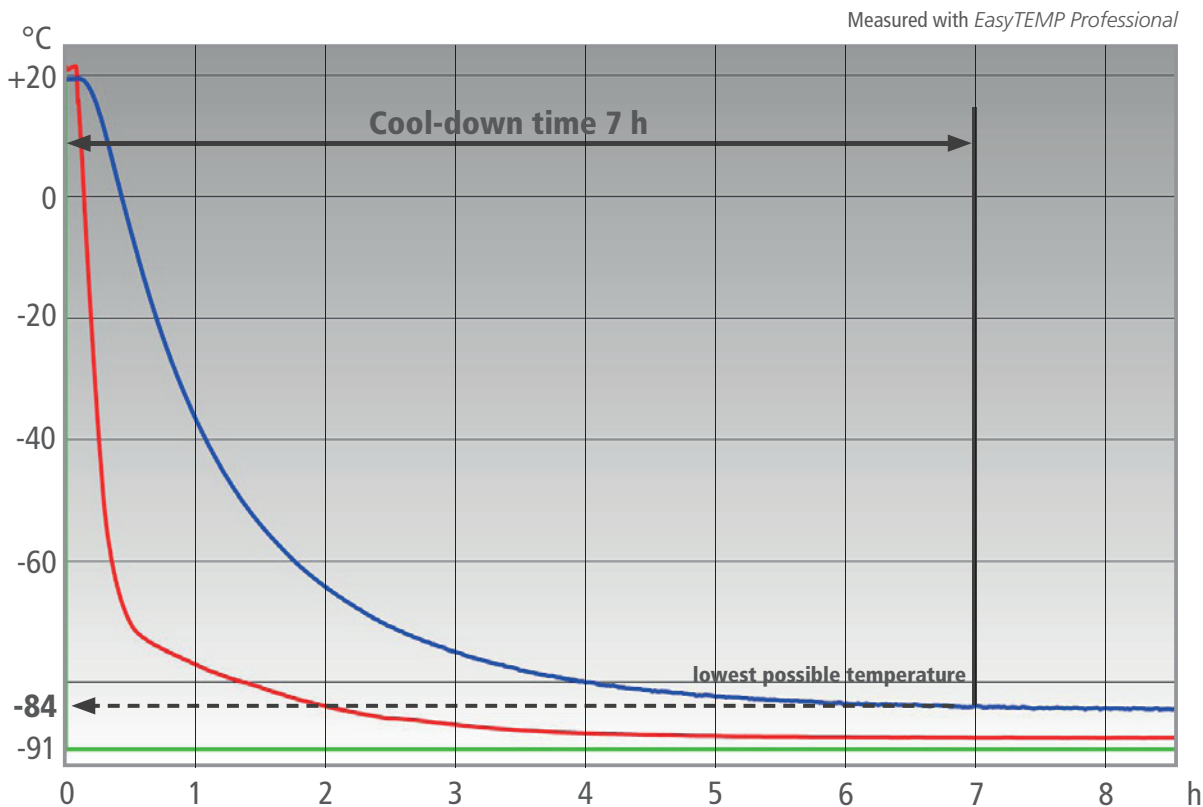
### Control parameters

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.



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

### 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.

**EasyTEMP**

