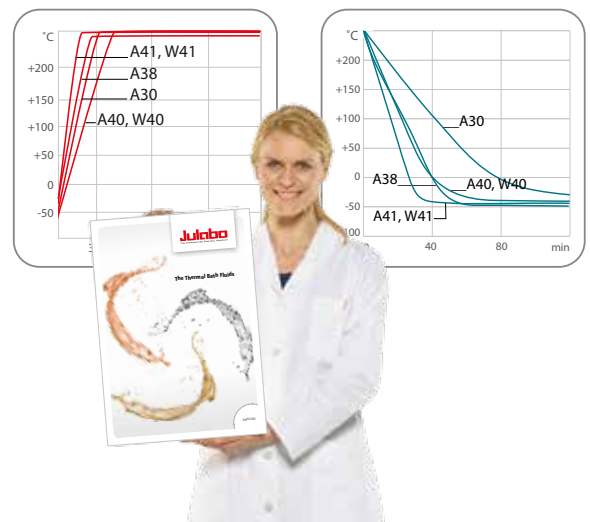


# PRESTO™

## BEST PERFORMANCE IN HIGHLY DYNAMIC

### HIGHLIGHTS

- Ideal for highly precise, external temperature control tasks from -93 °C to +250 °C
- Wide working temperature ranges using one thermal fluid
- Rapid heating and cooling
- Powerful circulation pumps, electronically adjustable in stages or by setting the pressure value

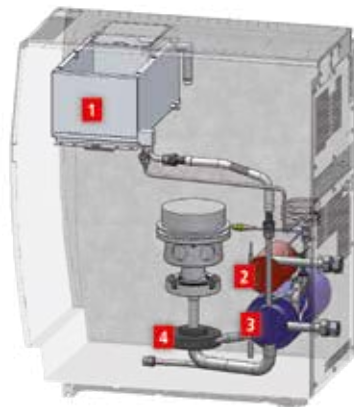


### The PRESTO principle

Expansion vessel (1)

Heat exchanger:  
Heating section (2)  
Refrigeration section (3)

Circulation pump (4)



### Flexible set up



### Space saving design

JULABO PRESTO are the only highly dynamic temperature control systems with closed side panels without ventilation slits. Save space by placing PRESTO units directly next to each other or your application.

# TEMPERATURE CONTROL SYSTEMS



## COMFORT

- Side panels without ventilation slits
- Important interfaces directly accessible from the front
- Easy to transport
- Hydraulically sealed to prevent unpleasant vapors and odors



## SAFETY

- Actively cooled expansion vessel compensates for temperature-induced volume changes in the heat exchanger
- Simple and safe filling procedure
- Hot or cold thermal bath fluid does not come into contact with oxygen
- Three user levels with password protection



## PERFORMANCE

- Rapid heating and cooling
- Heating capacity up to 36 kW
- Cooling capacity up to 31 kW
- Wide temperature ranges covered with only one thermal fluid
- Powerful, magnetically coupled pumps (free of seals and leak free)



## PROCESS SAFETY

- Fully automated degassing procedure
- reproducible results
- Maximum uptime
- Electronically adjustable pumps in stages or by setting the pressure value (except A30)



## COST EFFICIENCY

- Less thermal bath fluid needed compared to open bath circulators
- Smaller footprint



# PRESTO™

## THE PERFECT TEMPERATURE



### PRESTO for extremely wide temperature ranges

PRESTO is the perfect solution if you need to cover wide working temperature ranges. The PRESTO are designed to work in wide temperature ranges with one and the same thermal fluid. Forget about frequently changing the bath fluid and reduce your stock.

Filling is made easy: The filling funnel can be easily accessed from the top of the PRESTO allowing safe and easy filling.



### PRESTO systems are closed

The closed system design of the PRESTO prevents the hot or cold thermal fluid from getting in contact with ambient air. This lowers oxidation of the fluid at high temperatures to a minimum and prevents crystallization of humidity at low temperatures. In addition, the built-in expansion vessel is actively cooled.

Your benefit: Increased user safety and an extended life expectancy of the thermal fluid.

The absolute asset: Thanks to the closed design, the PRESTO prevents unpleasant oil vapor.



# CONTROL SOLUTION

## PRESTO with maximum performance

Providing strong cooling and heating capacities, the PRESTO systems cover a working temperature range of -93 °C to +250 °C. Highly efficient components compensate exothermic and endothermic reactions in no time (extremely fast).

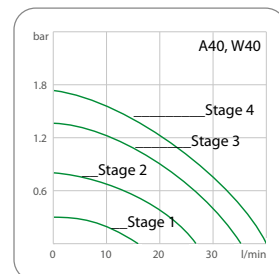
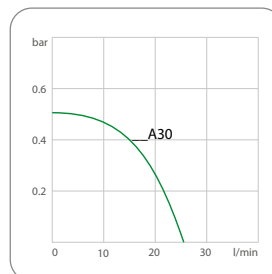
The smaller active heat exchange volume ensures faster heat-up and cool-down times.



## PRESTO pump capacity

PRESTO units generate the desired pressure at any time – to protect your applications and investments. The pumps even dynamically compensate for viscosity changes in the heat transfer fluid (except A30). Permanent internal monitoring and magnetically coupled pumps (without seals and leak free) provide best performance and maximum uptime.

### Pump capacity



**BOOST the PRESSURE**  
use the JULABO Booster Pump to increase pump pressure

The pump capacity can be adjusted gradually or by using a pressure value (except A30). The pressure build-up is constantly monitored. Viscosity changes are compensated interactively.

# PRESTO™

## THE BEST CHOICE FOR EVERY



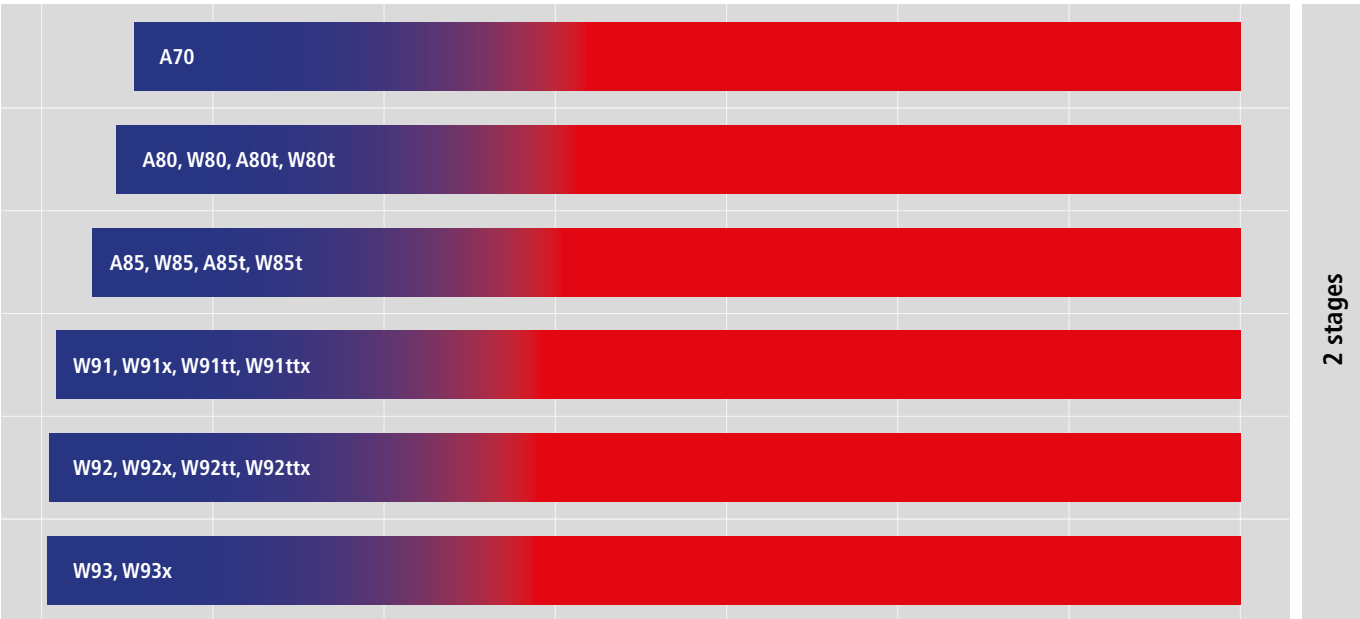
	Heating capacity/kW	Cooling capacity/kW						
		+20 °C	0 °C	-20 °C	-30 °C	-40 °C	-60 °C	-80 °C
PRESTO A30	2.7	0.5	0.4	0.2	0.02			
PRESTO A38	2.7	0.79	0.73	0.44	0.28	0.05		
PRESTO A40 and W40	2.7	1.2	0.9 (A40) 1 (W40)	0.4	0.15 (A40) 0.12 (W40)			
PRESTO A41 and W41	2.7	1.33	1.24	0.46	0.31	0.07		
PRESTO A45 and A45t	6 (A45) 12 (A45t)	3.5	3.3	1.8	1	0.3		
PRESTO W50 and W50t	6 (W50) 12 (W50t)	7.5	6.5	2.8	1.6	0.6		
PRESTO W55	15	15	10	4	2.5	1.2		
PRESTO W56 and W56x	27	25.8	23.1	11.5	7.1	3.5		
PRESTO A70	1.8	1	0.91	0.84	0.79	0.75	0.38	
PRESTO A80 and W80 Series	1.8 (A80, W80) 3.4 (A80t, W80t)	1.2	1.2	1.1	1.1	1.1	0.65	0.1
PRESTO A85 and W85 Series	6 (A85, W85) 15 (A85t, W85t)	2.5	2.4	2.4	2.4	2.4	2.2	0.4
PRESTO W91 Series	18 (W91, W91x) 36 (W91tt, W91ttx)	11	11	11	10.5	10.5	8	2
PRESTO W92 Series	18 (W92, W92x) 36 (W92tt, W92ttx)	27	20	11	10.5	10.5	8	2
PRESTO W93 Series	27	19.5	19.5	19.5	19.5	19.5	13	3.5

# APPLICATION

-100 °C      -50 °C      0 °C      +50 °C      +100 °C      +150 °C      +200 °C      +250 °C



1 stage



2 stages

# PRESTO

## PRESTO – small and powerful

For working temperatures from -45 °C to +250 °C

All the advantages of the PRESTO series for a working temperature range of -45 °C up to +250 °C.

- Heating capacity up to 2.7 kW
- Cooling capacity up to 1.33 kW
- Temperature stability  $\pm 0.01$  °C ...  $\pm 0.05$  °C
- Built-in 5.7" industrial color touchscreen
- Ports for USB, Ethernet, RS232, Modbus
- Alarm output
- External Pt100 sensor connection
- Analog connections, RS485, Profibus DP (accessory)
- Second external Pt100 sensor connection for A40 and W40 (accessory)

**TIP**



**NATURAL REFRIGERANT**

Units with this symbol work with environmentally friendly, natural refrigerants.

**TIP**

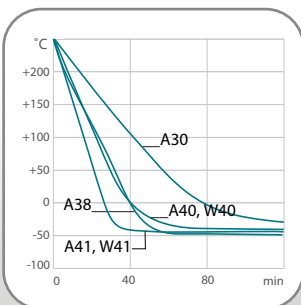
### Air-cooled or water-cooled

The PRESTO units are available as air-cooled or water-cooled units. Air-cooled units do not require water and can be installed anywhere. If you are looking for a flexible solution or if you expect to move the unit frequently, an air-cooled unit will be the best choice. However, it is important to know that air-cooled units slightly elevate the ambient temperature during operation.

Water-cooled units must be connected to an existing cooling water line. These units are even more quiet and can be virtually enclosed during operation. Robust heat exchangers are installed in the water-cooled PRESTO units. Clogging up the heat exchanger by particles or impure water is virtually impossible.

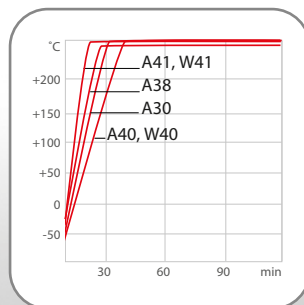
### Cool-down time

Bath fluid: Thermal HL

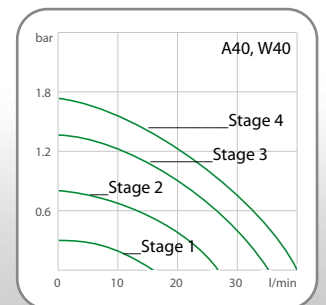
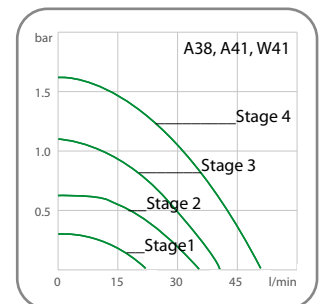
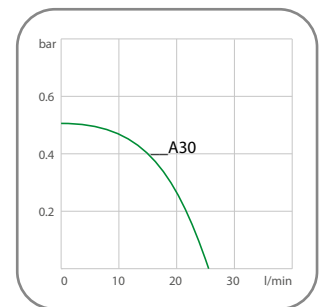


### Heat-up time

Bath fluid: Thermal HL



### Pump capacity



All data refers to the nominal voltage of 230 V, nominal frequency of 50 Hz and ambient temperature of +20 °C. Cooling capacity measured at max. pump stage. All pump data refers to a bath fluid with a specific density of 1 kg/dm<sup>3</sup>. Cooling capacity measured with Thermal HL (+200 °C) or Ethanol (except +200 °C)



## PRESTO™ A30

<b>Order No.</b>	9 420 300		
Working temperature range °C	-30 ... +250		
Temperature stability °C	±0.01 ... ±0.05		
Cooling capacity kW	<b>+200 °C</b>	<b>+20 °C</b>	<b>0 °C</b>
	0.5	0.5	0.4
	<b>-20 °C</b>	<b>-30 °C</b>	<b>-40 °C</b>
	0.2	0.02	-
Heating capacity kW	2.7		
Pump capacity	l/min	25	
Flow rate/Pressure	bar	0.5	
Process volume min. liters	2.4		
Cooling type	single stage, air cooled		
Dimensions cm	W × L × H 25 × 59 × 62		



## PRESTO™ A38

<b>Order No.</b>	9 420 381.N1		
Working temperature range °C	-45 ... +250		
Temperature stability °C	±0.01 ... ±0.05		
Cooling capacity kW	<b>+200 °C</b>	<b>+20 °C</b>	<b>0 °C</b>
	0.79	0.79	0.73
	<b>-20 °C</b>	<b>-30 °C</b>	<b>-40 °C</b>
	0.44	0.28	0.05
Heating capacity kW	2.7		
Pump capacity	l/min	50	
Flow rate/Pressure	bar	0.1 ... 1.6	
Process volume min. liters	3.5		
Cooling type	single stage, air cooled		
Dimensions cm	W × L × H 33 × 75 × 67		



## PRESTO™ A40

<b>Order No.</b>	9 420 401		
Working temperature range °C	-40 ... +250		
Temperature stability °C	±0.01 ... ±0.05		
Cooling capacity kW	<b>+200 °C</b>	<b>+20 °C</b>	<b>0 °C</b>
	1.2	1.2	0.9
	<b>-20 °C</b>	<b>-30 °C</b>	<b>-40 °C</b>
	0.4	0.15	-
Heating capacity kW	2.7		
Pump capacity	l/min	40	
Flow rate/Pressure	bar	0.1 ... 1.7	
Process volume min. liters	3.5		
Cooling type	single stage, air cooled		
Dimensions cm	W × L × H 33 × 59 × 67		



## PRESTO™ A41

<b>Order No.</b>	9 420 411.N1		
Working temperature range °C	-45 ... +250		
Temperature stability °C	±0.01 ... ±0.05		
Cooling capacity kW	<b>+200 °C</b>	<b>+20 °C</b>	<b>0 °C</b>
	1.33	1.33	1.24
	<b>-20 °C</b>	<b>-30 °C</b>	<b>-40 °C</b>
	0.46	0.31	0.07
Heating capacity kW	2.7		
Pump capacity	l/min	50	
Flow rate/Pressure	bar	0.1 ... 1.6	
Process volume min. liters	3.5		
Cooling type	single stage, air cooled		
Dimensions cm	W × L × H 33 × 75 × 67		



## PRESTO™ W40

<b>Order No.</b>	9 421 401		
Working temperature range °C	-40 ... +250		
Temperature stability °C	±0.01 ... ±0.05		
Cooling capacity kW	<b>+200 °C</b>	<b>+20 °C</b>	<b>0 °C</b>
	1.2	1.2	1.0
	<b>-20 °C</b>	<b>-30 °C</b>	<b>-40 °C</b>
	0.4	0.12	-
Heating capacity kW	2.7		
Pump capacity	l/min	40	
Flow rate/Pressure	bar	0.1 ... 1.7	
Process volume min. liters	3.5		
Cooling type	single stage, water cooled		
Dimensions cm	W × L × H 33 × 59 × 67		



## PRESTO™ W41

<b>Order No.</b>	9 421 411.N1		
Working temperature range °C	-45 ... +250		
Temperature stability °C	±0.01 ... ±0.05		
Cooling capacity kW	<b>+200 °C</b>	<b>+20 °C</b>	<b>0 °C</b>
	1.33	1.33	1.24
	<b>-20 °C</b>	<b>-30 °C</b>	<b>-40 °C</b>
	0.46	0.31	0.07
Heating capacity kW	2.7		
Pump capacity	l/min	50	
Flow rate/Pressure	bar	0.1 ... 1.6	
Process volume min. liters	3.5		
Cooling type	single stage, water cooled		
Dimensions cm	W × L × H 33 × 75 × 67		



## PRESTO A45 /A45t Air-cooled top performance

For working temperatures from -45 °C to +250 °C

Top PRESTO performance down to -45 °C, increased heating power with the A45t.

- Heating capacity up to 12 kW
- Cooling capacity up to 3.5 kW
- Temperature stability  $\pm 0.05$  °C ...  $\pm 0.1$  °C
- Built-in 5.7" industrial color touchscreen
- Ports for USB, Ethernet, RS232, Modbus
- Alarm output
- External Pt100 sensor connection
- Analog connections, RS485, Profibus DP (accessory)
- Second external Pt100 sensor connection (accessory)

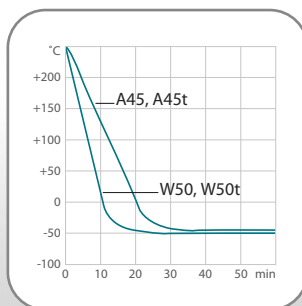


PRESTO™ A45			
Order No.	9 420 452		
Working temperature range °C	-45 ... +250		
Temperature stability °C	$\pm 0.05$ ... $\pm 0.1$		
Cooling capacity kW	+200 °C	+20 °C	0 °C
	3.4	3.5	3.3
	-20 °C	-30 °C	-40 °C
	1.8	1	0.3
Heating capacity kW	6		
Pump capacity	l/min	80	
Flow rate/Pressure	bar	0.1 ... 3.0	
Process volume min. liters	7.5		
Cooling type	single stage, air cooled		
Dimensions cm	W × L × H		
	53 × 66.5 × 126		

PRESTO™ A45t			
Order No.	9 420 452.T		
Working temperature range °C	-45 ... +250		
Temperature stability °C	$\pm 0.05$ ... $\pm 0.1$		
Cooling capacity kW	+200 °C	+20 °C	0 °C
	3.4	3.5	3.3
	-20 °C	-30 °C	-40 °C
	1.8	1	0.3
Heating capacity kW	12		
Pump capacity	l/min	80	
Flow rate/Pressure	bar	0.1 ... 3.0	
Process volume min. liters	7.5		
Cooling type	single stage, air cooled		
Dimensions cm	W × L × H		
	53 × 66.5 × 126		

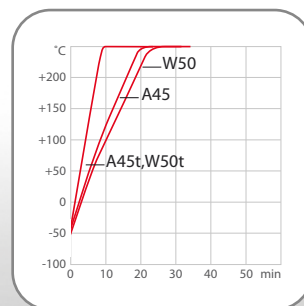
### Cool-down time

Bath fluid: Thermal HL



### Heat-up time

Bath fluid: Thermal HL



All data refers to the nominal voltage of 400 V, nominal frequency of 50 Hz and ambient temperature of +20 °C.  
Cooling capacity measured at max. pump stage. All pump data refers to a bath fluid with a specific density of 1 kg/dm<sup>3</sup>.  
Cooling capacity measured with Thermal HL (+200 °C) or Ethanol (except +200 °C)

## PRESTO W50/W50t Water-cooled and powerful

For working temperatures from -50 °C to +250 °C

W50 and W50t instruments are able to compensate reactions very fast. Maximum heating and cooling performance paired with powerful pumps.

- Heating capacity up to 12 kW
- Cooling capacity up to 7.5 kW
- Temperature stability  $\pm 0.05$  °C ...  $\pm 0.1$  °C
- Built-in 5.7" industrial color touchscreen
- Ports for USB, Ethernet, RS232, Modbus
- Alarm output
- External Pt100 sensor connection
- Analog connections, RS485, Profibus DP (accessory)
- Second external Pt100 sensor connection (accessory)



### PRESTO™ W50

<b>Order No.</b>	<b>9 421 502</b>		
Working temperature range °C	-50 ... +250		
Temperature stability °C	$\pm 0.05$ ... $\pm 0.1$		
Cooling capacity kW	<b>+200 °C</b>	<b>+20 °C</b>	<b>0 °C</b>
	7	7.5	6.5
	<b>-20 °C</b>	<b>-30 °C</b>	<b>-40 °C</b>
	3	1.8	0.6
Heating capacity kW	6		
Pump capacity	l/min	80	
Flow rate/Pressure	bar	0.1 ... 3.0	
Process volume min. liters	7.5		
Cooling type	single stage, water cooled		
Dimensions cm	W × L × H		
	53 × 66.5 × 126		

### PRESTO™ W50t

<b>Order No.</b>	<b>9 421 502.T</b>		
Working temperature range °C	-50 ... +250		
Temperature stability °C	$\pm 0.05$ ... $\pm 0.1$		
Cooling capacity kW	<b>+200 °C</b>	<b>+20 °C</b>	<b>0 °C</b>
	7	7.5	6.5
	<b>-20 °C</b>	<b>-30 °C</b>	<b>-40 °C</b>
	3	1.8	0.6
Heating capacity kW	12		
Pump capacity	l/min	80	
Flow rate/Pressure	bar	0.1 ... 3.0	
Process volume min. liters	7.5		
Cooling type	single stage, water cooled		
Dimensions cm	W × L × H		
	53 × 66.5 × 126		



## ADJUSTABLE PUMPS FOR MAXIMUM SAFETY

All PRESTO units are equipped with adjustable pumps (except A30). They can be controlled not to exceed the maximum allowed fluid pressure in the application (e.g. in glass reactors). A two-stage, built-in adjustable safety setting is double assurance that the maximum amount of allowed pressure is not exceeded. That means maximum process safety, and an additional external pressure control is not needed – which saves space and budget.

The adjustable pumps also ensure more flexibility in connecting the application: high pump performance allows to bridge long distances or height differences. Set to low pressure, sensitive systems can also be connected with short lines.

## PRESTO W55 Water-cooled and powerful

For working temperatures from -55 °C to +250 °C

The powerful W55 regulates temperatures with high precision and convinces with faster cool-down and heat-up times. It is ideal for use in large external applications such as reactor temperature control, material stress testing or temperature simulation. By using highly efficient components, the PRESTO W55 compensates for exothermic and endothermic reactions even faster.

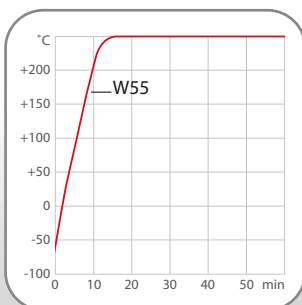
- Heating capacity up to 15 kW
- Cooling capacity up to 15 kW
- Temperature stability  $\pm 0.05 \dots \pm 0.1 \text{ }^\circ\text{C}$
- Built-in 5.7" industrial color touchscreen
- Connection for alarm output
- Connection for external Pt100 sensor
- RS232, SD memory card, USB, Ethernet, Modbus
- Alarm output, RS485 (accessories), Profibus (accessories)
- Analog inputs/outputs (accessories)



PRESTO™ W55			
Order No.	9 421 552		
Working temperature range °C	-55 ... +250		
Temperature stability °C	$\pm 0.05 \dots \pm 0.1$		
Cooling capacity kW	+200 °C	+20 °C	0 °C
	13.5	15	10
	-20 °C	-30 °C	-40 °C
	4	2.5	1.2
Heating capacity kW	15		
Pump capacity	l/min	80	
Flow rate/ Pressure	bar	0.1 ... 3.0	
Process volume min. liters	11.5		
Cooling type	single stage, water cooled		
Dimensions cm	W × L × H		
	61 × 84.5 × 125		

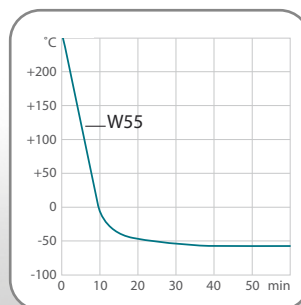
### Heat-up time

Bath fluid: Thermal HL



### Cool-down time

Bath fluid: Thermal HL



All data refers to the nominal voltage of 400 V, nominal frequency of 50 Hz and ambient temperature of +20 °C.  
Cooling capacity measured at max. pump stage. All pump data refers to a bath fluid with a specific density of 1 kg/dm<sup>3</sup>.  
Cooling capacity measured with Thermal HL (+200 °C) or Ethanol (except +200 °C)

## PRESTO W56/W56x

### Water-cooled and powerful

For working temperatures from -56 °C to +250 °C

The water-cooled PRESTO W56 can temperature control applications with high performance requirements very quickly and efficiently. Even at low temperatures it has large power reserves for challenging external applications.

The magnetically coupled pump allows the user to optimally adjust pump capacity to suit the application, even over large distances and height differences, as well as for pressure-sensitive applications. Use of the latest thermodynamic technologies means that the cooling capacity is automatically adjusted to the current power requirements. In combination with additional optimizations, this makes the PRESTO W56 very economical and energy-efficient.

The PRESTO W56x has a gear pump, which also allows use of bath fluids with a higher viscosity.

- Heating capacity up to 27 kW
- Cooling capacity up to 25 kW
- Temperature stability  $\pm 0.05 \dots \pm 0.1 \text{ } ^\circ\text{C}$
- Built-in 5.7" industrial color touchscreen
- Connection for alarm output
- Connection for external Pt100 sensor
- RS232, SD memory card, USB, Ethernet, Modbus
- Alarm output, RS485 (accessories), Profibus (accessories)
- Analog inputs / outputs (accessories)



### PRESTO™ W56

<b>Order No.</b>	<b>9 421 562</b>		
Working temperature range °C	-56 ... +250		
Temperature stability °C	$\pm 0.05 \dots \pm 0.1$		
Cooling capacity kW	<b>+200 °C</b>	<b>+20 °C</b>	<b>0 °C</b>
	19	25.8	23.1
	<b>-20 °C</b>	<b>-30 °C</b>	<b>-40 °C</b>
	11.5	7.1	3.5
Heating capacity kW	27		
Pump capacity	l/min	80	
Flow rate / Pressure	bar	0.1 ... 3.0	
Process volume min. liters	11		
Cooling type	single stage, water cooled		
Dimensions cm	W × L × H		
	60 × 94 × 164		

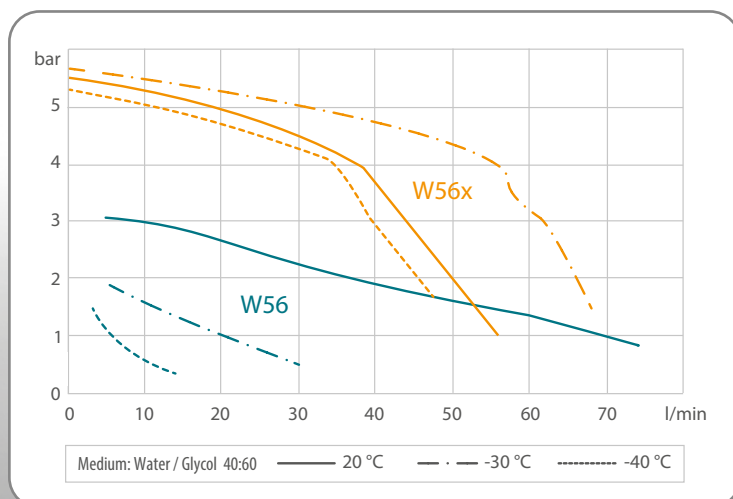


### PRESTO™ W56x

<b>Order No.</b>	<b>9 421 563</b>		
Working temperature range °C	-45 ... +150		
Temperature stability °C	$\pm 0.05 \dots \pm 0.05$		
Cooling capacity kW	<b>+20 °C</b>	<b>0 °C</b>	
	25.8	23.1	
	<b>-20 °C</b>	<b>-30 °C</b>	<b>-40 °C</b>
	11.5	7.1	3.5
Heating capacity kW	27		
Pump capacity	l/min	70	
Flow rate / Pressure	bar	0.1 ... 5.5	
Process volume min. liters	11		
Cooling type	single stage, water cooled		
Dimensions cm	W × L × H		
	60 × 94 × 164		

### Overview pump pressure

W56 and W56x



## PRESTO A70, A80/A80t and W80/W80t Low temperatures – no problem

For working temperatures from -80 °C to +250 °C

The 2-stage cooling systems provide lower temperatures with all of the other PRESTO advantages.

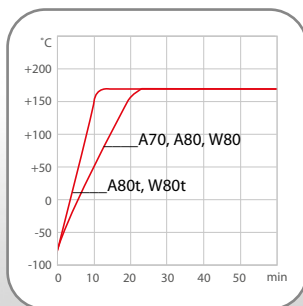
- Heating capacity up to 3.4 kW
- Cooling capacity up to 1.2 kW
- Temperature stability  $\pm 0.01$  °C ...  $\pm 0.05$  °C
- Built-in 5.7" industrial color touchscreen
- Ports for USB, Ethernet, RS232, Modbus
- Alarm output
- External Pt100 sensor connection
- Analog connections, RS485, Profibus DP (accessory)
- Second external Pt100 sensor connection (accessory)



PRESTO™ A70	
<b>Order No.</b>	<b>9 420 701.N1</b>
Working temperature range °C	-75 ... +250
Temperature stability °C	$\pm 0.01$ ... $\pm 0.05$
Cooling capacity kW	<b>+200 °C</b> <b>+20 °C</b> <b>0 °C</b>
	1                    1                    0.91
	<b>-20 °C</b> <b>-30 °C</b> <b>-40 °C</b>
	0.84            0.79            0.75
Heating capacity kW	1.8
Pump capacity	l/min            40
Flow rate/ Pressure	bar              0.1 ... 1.7
Process volume min. liters	3.9
Cooling type	2-stage, air cooled
Dimensions cm	W × L × H
	57 × 74.5 × 88

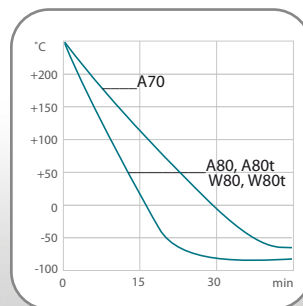
### Heat-up time

Bath fluid: Thermal HL

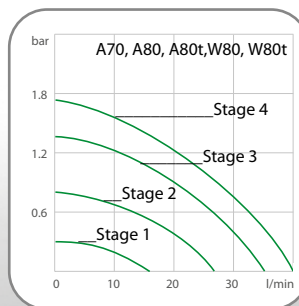


### Cool-down time

Bath fluid: Thermal HL



### Pump capacity



All data refers to the nominal voltage of 230 V, nominal frequency of 50 Hz (respectively 400 V, 3Ph., 50 Hz) and ambient temperature of +20 °C. Cooling capacity measured at max. pump stage. All pump data refers to a bath fluid with a specific density of 1 kg/dm³. Cooling capacity measured with Thermal HL (+200 °C) or Ethanol (except +200 °C)



## PRESTO™ A80

<b>Order No.</b>	<b>9 420 801</b>		
Working temperature range °C	-80 ... +250		
Temperature stability °C	±0.01 ... ±0.05		
Cooling capacity kW	<b>+200 °C</b>	<b>+20 °C</b>	<b>0 °C</b>
	1.2	1.2	1.2
	<b>-40 °C</b>	<b>-60 °C</b>	<b>-80 °C</b>
	1.1	0.65	0.1
Heating capacity kW	1.8		
Pump capacity	l/min	40	
Flow rate/Pressure	bar	0.1 ... 1.7	
Process volume min. liters	3.9		
Cooling type	2-stage, air cooled		
Dimensions cm	W × L × H 43 × 65 × 126		



## PRESTO™ W80

<b>Order No.</b>	<b>9 421 801</b>		
Working temperature range °C	-80 ... +250		
Temperature stability °C	±0.01 ... ±0.05		
Cooling capacity kW	<b>+200 °C</b>	<b>+20 °C</b>	<b>0 °C</b>
	1.2	1.2	1.2
	<b>-40 °C</b>	<b>-60 °C</b>	<b>-80 °C</b>
	1.1	0.65	0.1
Heating capacity kW	1.8		
Pump capacity	l/min	40	
Flow rate/Pressure	bar	0.1 ... 1.7	
Process volume min. liters	3.9		
Cooling type	2-stage, water cooled		
Dimensions cm	W × L × H 43 × 65 × 126		



## PRESTO™ A80t

<b>Order No.</b>	<b>9 420 801.T</b>		
Working temperature range °C	-80 ... +250		
Temperature stability °C	±0.01 ... ±0.05		
Cooling capacity kW	<b>+200 °C</b>	<b>+20 °C</b>	<b>0 °C</b>
	1.2	1.2	1.2
	<b>-40 °C</b>	<b>-60 °C</b>	<b>-80 °C</b>
	1.1	0.65	0.1
Heating capacity kW	3.4		
Pump capacity	l/min	40	
Flow rate/Pressure	bar	0.1 ... 1.7	
Process volume min. liters	3.9		
Cooling type	2-stage, air cooled		
Dimensions cm	W × L × H 43 × 65 × 126		



## PRESTO™ W80t

<b>Order No.</b>	<b>9 421 801.T</b>		
Working temperature range °C	-80 ... +250		
Temperature stability °C	±0.01 ... ±0.05		
Cooling capacity kW	<b>+200 °C</b>	<b>+20 °C</b>	<b>0 °C</b>
	1.2	1.2	1.2
	<b>-40 °C</b>	<b>-60 °C</b>	<b>-80 °C</b>
	1.1	0.65	0.1
Heating capacity kW	3.4		
Pump capacity	l/min	40	
Flow rate/Pressure	bar	0.1 ... 1.7	
Process volume min. liters	3.9		
Cooling type	2-stage, water cooled		
Dimensions cm	W × L × H 43 × 65 × 126		

## PRESTO A85 /A85t and W85 /W85t Power packages

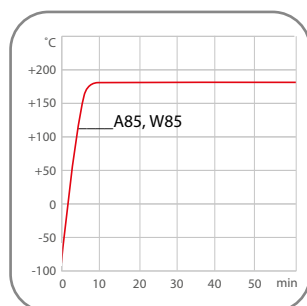
For working temperatures from -85 °C to +250 °C

High cooling capacities enable extremely low temperatures down to -85 °C possible. The high heating capacity, particularly with the A85t and the W85t, provides even more flexibility in the application.

- Heating capacity up to 15 kW
- Cooling capacity up to 2.8 kW
- Temperature stability  $\pm 0.05$  °C ...  $\pm 0.1$  °C
- Built-in 5.7" industrial color touchscreen
- Ports for USB, Ethernet, RS232, Modbus
- Alarm output
- External Pt100 sensor connection
- Analog connections, RS485, Profibus DP (accessory)
- Second external Pt100 sensor connection (accessory)

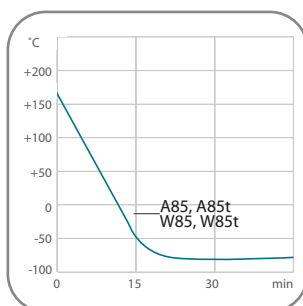
### Heat-up time

Bath fluid: Thermal HL



### Cool-down time

Bath fluid: Thermal HL



## PRESTO™ A85

**Order No.** 9 420 852

Working temperature range °C -85 ... +250

Temperature stability °C  $\pm 0.05$  ...  $\pm 0.1$

Cooling capacity kW	<b>+200 °C</b>	<b>+20 °C</b>	<b>0 °C</b>
	2.8	2.5	2.4
	<b>-40 °C</b>	<b>-60 °C</b>	<b>-80 °C</b>
	2.4	2.2	0.4

Heating capacity kW 6

Pump capacity l/min 80

Flow rate / Pressure bar 0.1 ... 3.0

Process volume min. liters 9.5

Cooling type 2-stage, air cooled

Dimensions cm W × L × H  
61 × 108 × 125



## BEST PERFORMANCE

PRESTO provides the best values in heating and cooling performance and enables rapid compensation of temperature changes in the application. Powerful magnetically coupled pumps (with no seals and leak free) keep the lab clean and achieve high flow rates without damaging the application connected.

PRESTO is suitable for a wide range of applications such as double-jacketed reactors, autoclaves, combinatorial chemistry, reaction blocks and much more. The W91 and W92 systems are especially well suited for use in pilot plants, material and component testing as well as for environmental testing and simulations.

All data refers to the nominal voltage of 400 V, 3Ph., nominal frequency of 50 Hz and ambient temperature of +20 °C. Cooling capacity measured at max. pump stage. All pump data refers to a bath fluid with a specific density of 1 kg/dm<sup>3</sup>. Cooling capacity measured with Thermal HL (+200 °C) or Ethanol (except +200 °C)



## PRESTO™ A85t

<b>Order No.</b>	<b>9 420 852.T</b>		
Working temperature range °C	-85 ... +250		
Temperature stability °C	±0.05 ... ±0.1		
Cooling capacity kW	<b>+200 °C</b>	<b>+20 °C</b>	<b>0 °C</b>
	2.8	2.5	2.4
	<b>-40 °C</b>	<b>-60 °C</b>	<b>-80 °C</b>
	2.4	2.2	0.4
Heating capacity kW	15		
Pump capacity	l/min	80	
Flow rate/Pressure	bar	0.1 ... 3.0	
Process volume min. liters	9.5		
Cooling type	2-stage, air cooled		
Dimensions cm	W × L × H		
	61 × 108 × 125		

## PRESTO™ W85

<b>Order No.</b>	<b>9 421 852</b>		
Working temperature range °C	-85 ... +250		
Temperature stability °C	±0.05 ... ±0.1		
Cooling capacity kW	<b>+200 °C</b>	<b>+20 °C</b>	<b>0 °C</b>
	2.8	2.5	2.4
	<b>-40 °C</b>	<b>-60 °C</b>	<b>-80 °C</b>
	2.4	2.2	0.4
Heating capacity kW	6		
Pump capacity	l/min	80	
Flow rate/Pressure	bar	0.1 ... 3.0	
Process volume min. liters	9.5		
Cooling type	2-stage, water cooled		
Dimensions cm	W × L × H		
	61 × 84.5 × 125		

## PRESTO™ W85t

<b>Order No.</b>	<b>9 421 852.T</b>		
Working temperature range °C	-85 ... +250		
Temperature stability °C	±0.05 ... ±0.1		
Cooling capacity kW	<b>+200 °C</b>	<b>+20 °C</b>	<b>0 °C</b>
	2.8	2.5	2.4
	<b>-40 °C</b>	<b>-60 °C</b>	<b>-80 °C</b>
	2.4	2.2	0.4
Heating capacity kW	15		
Pump capacity	l/min	80	
Flow rate/Pressure	bar	0.1 ... 3.0	
Process volume min. liters	9.5		
Cooling type	2-stage, water cooled		
Dimensions cm	W × L × H		
	61 × 84.5 × 125		

## Booster Pump

The JULABO magnetically coupled Booster Pump is the ideal solution to increase the pressure or flow rate in your application. The Booster Pump is specifically designed to be easily connected between PRESTO units and your application.

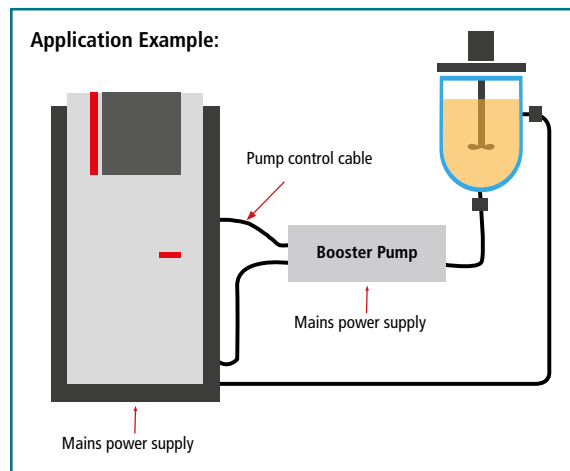
The Mag Drive Booster Pump can increase your fluid pressure up to 2.1 bar. The stainless steel design of the pump provides excellent chemical resistivity. The magnetically coupled design guarantees 100 % leakage free operation over an extraordinary temperature range of -90 °C ... +250 °C.



### BOOST the PRESSURE

use the JULABO Booster Pump to increase pump pressure

### Application Example:





## PRESTO W91

For working temperatures from -91 °C to +250 °C

Best heating performance combined with high cooling capacity – those are the key features of the W91 systems. These models are just as ready for embedding into pilot plants as they are for use in material and component testing.

The W91x and W91tt models have a gear pump, which also allows use of bath fluids with a higher viscosity.

- Heating capacity up to 36 kW
- Cooling capacity up to 11 kW
- Temperature stability  $\pm 0.05$  °C ...  $\pm 0.2$  °C
- Built-in 5.7" industrial color touchscreen
- Ports for USB, Ethernet, RS232, Modbus
- Alarm output
- External Pt100 sensor connection
- Analog connections, RS485, Profibus DP (accessory)
- Second external Pt100 sensor connection (accessory)

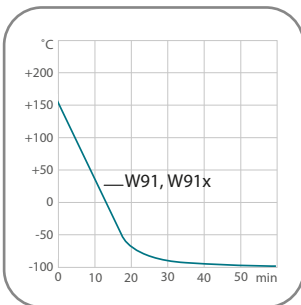


### BEST PUMP PERFORMANCE

All PRESTO units are equipped with powerful, magnetically coupled pumps (without seals and leak free). The W91 and W92 models can also be equipped with a gear pump. The instruments with gear pumps are indicated with an 'x'. The gear pumps provide a higher fluid pressure and a more constant flow rate than the centrifugal pumps, especially when high viscosity fluids are used.

### Cool-down time

Bath fluid: Thermal HL



PRESTO™ W91				PRESTO™ W91tt			
Order No.	9 421 912			Order No.	9 421 912.TT		
Working temperature range °C	-91 ... +250			Working temperature range °C	-91 ... +250		
Temperature stability °C	$\pm 0.05$ ... $\pm 0.2$			Temperature stability °C	$\pm 0.05$ ... $\pm 0.2$		
Cooling capacity kW	+200 °C	+20 °C	0 °C	Cooling capacity kW	+200 °C	+20 °C	0 °C
	11	11	11		11	11	11
Cooling capacity kW	-40 °C	-60 °C	-80 °C	Cooling capacity kW	-40 °C	-60 °C	-80 °C
	10.5	8	2		10.5	8	2
Heating capacity kW	18			Heating capacity kW	36		
Pump capacity	l/min 80			Pump capacity	l/min 80		
Flow rate/Pressure	bar 0.1 ... 3.0			Flow rate/Pressure	bar 0.1 ... 3.0		
Process volume min. liters	28			Process volume min. liters	28		
Cooling type	2-stage, water cooled			Cooling type	2-stage, water cooled		
Dimensions cm	W × L × H			Dimensions cm	W × L × H		
	95 × 127 × 190				95 × 127 × 190		

All data refers to the nominal voltage of 400 V, 3 Ph., 50 Hz and ambient temperature of +20 °C. Cooling capacity measured at max. pump stage. All pump data refers to a bath fluid with a specific density of 1 kg/dm<sup>3</sup>. Cooling capacity measured with Thermal HL (+200 °C) or Ethanol (except +200 °C)

## Top performance for demanding temperature applications

TIP

JULABO PRESTO is synonymous with best performance in highly dynamic temperature control systems. In temperature ranges from -93 °C to +250 °C, PRESTO provides highest heating and cooling capacity paired with powerful and maintenance-free pumps. The PRESTO portfolio features a wide range of units for various applications.

### PRESTO systems are ideal for reactor temperature control.

Various reactors can be connected to the PRESTO system using the available tubing. Such as the PRESTO A80. With a heating capacity of 1.8 kW, the PRESTO A80 can heat up a reactor with the thermal bath fluid in it from 0 °C to +50 °C in 1 hour and 30 minutes without overheating\*.



\* tested with the JULABO Thermal HL80 and 20 l reactor filled with 18 l JULABO Thermal HL40

More case studies can be found at <https://case-studies.julabo.com>



### PRESTO™ W91x

<b>Order No.</b>	<b>9 421 913</b>		
Working temperature range °C	-91 ... +250		
Temperature stability °C	±0.05 ... ±0.2		
Cooling capacity kW	<b>+200 °C</b>	<b>+20 °C</b>	<b>0 °C</b>
	11	11	11
	<b>-40 °C</b>	<b>-60 °C</b>	<b>-80 °C</b>
	10.5	8	2
Heating capacity kW	18		
Pump capacity	l/min	70	
Flow rate/Pressure	bar	0.1 ... 5.5	
Process volume min. liters	28		
Cooling type	2-stage, water cooled		
Dimensions cm	W × L × H 95 × 127 × 190		

### PRESTO™ W91ttx

<b>Order No.</b>	<b>9 421 913.TT</b>		
Working temperature range °C	-91 ... +250		
Temperature stability °C	±0.05 ... ±0.2		
Cooling capacity kW	<b>+200 °C</b>	<b>+20 °C</b>	<b>0 °C</b>
	11	11	11
	<b>-40 °C</b>	<b>-60 °C</b>	<b>-80 °C</b>
	10.5	8	2
Heating capacity kW	36		
Pump capacity	l/min	70	
Flow rate/Pressure	bar	0.1 ... 5.5	
Process volume min. liters	28		
Cooling type	2-stage, water cooled		
Dimensions cm	W × L × H 95 × 127 × 190		

## PRESTO W92

For working temperatures from -92 °C to +250 °C

The W92 class process systems are extremely powerful and can also simulate extreme environmental conditions. They are used, for example, in the temperature control of vacuum chambers for component testing in the aerospace industry.

The W92x and W92ttx models have a gear pump, which also allows use of bath fluids with a higher viscosity.

- Heating capacity up to 36 kW
- Cooling capacity up to 31 kW
- Temperature stability  $\pm 0.05$  °C ...  $\pm 0.2$  °C
- Built-in 5.7" industrial color touchscreen
- Ports for USB, Ethernet, RS232, Modbus
- Alarm output
- External Pt100 sensor connection
- Analog connections, RS485, Profibus DP (accessory)
- Second external Pt100 sensor connection (accessory)



### PRESTO™ W92

<b>Order No.</b>	<b>9 421 922</b>		
Working temperature range °C	-92 ... +250		
Temperature stability °C	$\pm 0.05$ ... $\pm 0.2$		
Cooling capacity kW	<b>+200 °C</b>	<b>+20 °C</b>	<b>0 °C</b>
	31	27	20
	<b>-40 °C</b>	<b>-60 °C</b>	<b>-80 °C</b>
	10.5	8	2
Heating capacity kW	18		
Pump capacity	l/min	80	
Flow rate / Pressure	bar	0.1 ... 3.0	
Process volume min. liters	28		
Cooling type	2-stage, water cooled		
Dimensions cm	W × L × H		
	95 × 127 × 190		



### PRESTO™ W92tt

<b>Order No.</b>	<b>9 421 922.TT</b>		
Working temperature range °C	-92 ... +250		
Temperature stability °C	$\pm 0.05$ ... $\pm 0.2$		
Cooling capacity kW	<b>+200 °C</b>	<b>+20 °C</b>	<b>0 °C</b>
	31	27	20
	<b>-40 °C</b>	<b>-60 °C</b>	<b>-80 °C</b>
	10.5	8	2
Heating capacity kW	36		
Pump capacity	l/min	80	
Flow rate / Pressure	bar	0.1 ... 3.0	
Process volume min. liters	28		
Cooling type	2-stage, water cooled		
Dimensions cm	W × L × H		
	95 × 127 × 190		



### PRESTO™ W92x

<b>Order No.</b>	<b>9 421 923</b>		
Working temperature range °C	-92 ... +250		
Temperature stability °C	$\pm 0.05$ ... $\pm 0.2$		
Cooling capacity kW	<b>+200 °C</b>	<b>+20 °C</b>	<b>0 °C</b>
	31	27	20
	<b>-40 °C</b>	<b>-60 °C</b>	<b>-80 °C</b>
	10.5	8	2
Heating capacity kW	18		
Pump capacity	l/min	70	
Flow rate / Pressure	bar	0.1 ... 5.5	
Process volume min. liters	28		
Cooling type	2-stage, water cooled		
Dimensions cm	W × L × H		
	95 × 127 × 190		



### PRESTO™ W92ttx

<b>Order No.</b>	<b>9 421 923.TT</b>		
Working temperature range °C	-92 ... +250		
Temperature stability °C	$\pm 0.05$ ... $\pm 0.2$		
Cooling capacity kW	<b>+200 °C</b>	<b>+20 °C</b>	<b>0 °C</b>
	31	27	20
	<b>-40 °C</b>	<b>-60 °C</b>	<b>-80 °C</b>
	10.5	8	2
Heating capacity kW	36		
Pump capacity	l/min	70	
Flow rate / Pressure	bar	0.1 ... 5.5	
Process volume min. liters	28		
Cooling type	2-stage, water cooled		
Dimensions cm	W × L × H		
	95 × 127 × 190		

## PRESTO W93 /W93x

### Full cooling capacity in the low temperature range

for working temperatures from -93 °C...+250 °C

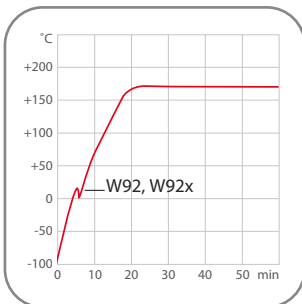
W93 process systems offer users high cooling capacity even in the lowest temperature ranges for dynamic applications. They work with natural refrigerants and are also very energy efficient thanks to state-of-the-art technologies.

The W93x has a gear pump, which also allows use of bath fluids with a higher viscosity.

- Heating capacity of 27 kW
- Cooling capacity up to 19.5 kW
- Temperature stability  $\pm 0.05 \dots \pm 0.2$  °C
- Built-in 5.7" industrial color touchscreen
- Ports for USB, Ethernet, RS232, Modbus
- Alarm output
- External Pt100 sensor connection
- Analog connections, RS485, profibus DP (accessory)
- Second external Pt100 sensor connection (accessory)

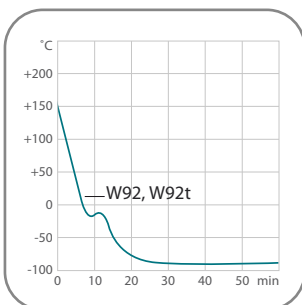
#### Heat-up time

Bath fluid: Thermal HL



#### Cool-down time

Bath fluid: Thermal HL



All data refers to the nominal voltage of 400 V, 3 Ph., 50 Hz and ambient temperature of +20 °C. Cooling capacity measured at max. pump stage. All pump data refers to a bath fluid with a specific density of 1 kg/dm³. Cooling capacity measured with Thermal HL (+200 °C) or Ethanol (except +200 °C)



### PRESTO™ W93

<b>Order No.</b>	<b>9 421 932.N1</b>		
Working temperature range °C	-93 ... +250		
Temperature stability °C	$\pm 0.05 \dots \pm 0.2$		
Cooling capacity kW	<b>+20 °C</b>	<b>0 °C</b>	
	19.5	19.5	
	<b>-40 °C</b>	<b>-60 °C</b>	<b>-80 °C</b>
	19.5	13	3.5
Heating capacity kW	27		
Pump capacity	l/min	80	
Flow rate/ Pressure	bar	0.1 ... 3.0	
Process volume min. liters	14		
Cooling type	2-stage, water cooled		
Dimensions cm	W × L × H		
	93 × 148 × 192		



### PRESTO™ W93x

<b>Order No.</b>	<b>9 421 933.N1</b>		
Working temperature range °C	-93 ... +250		
Temperature stability °C	$\pm 0.05 \dots \pm 0.2$		
Cooling capacity kW	<b>+20 °C</b>	<b>0 °C</b>	
	19.5	19.5	
	<b>-40 °C</b>	<b>-60 °C</b>	<b>-80 °C</b>
	19.5	13	3.5
Heating capacity kW	27		
Pump capacity	l/min	70	
Flow rate/ Pressure	bar	0.1 ... 5.5	
Process volume min. liters	14		
Cooling type	2-stage, water cooled		
Dimensions cm	W × L × H		
	93 × 148 × 192		

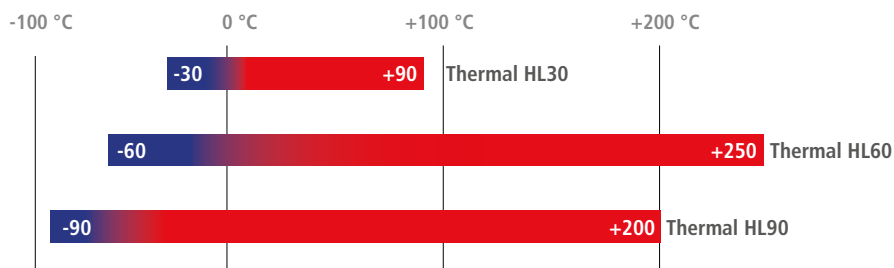
## JULABO Thermal bath fluids for the PRESTO

### Advantages

- Broad temperature ranges
- Low viscosity
- High stability
- Good thermal conductivity
- Almost odorless
- Long life



### Working temperature range



### Makes day-to-day work in labs easier

JULABO Thermal bath fluids with practical drain port included.





<b>Order No. 5 liters</b>	<b>8 940 139</b>
<b>Order No. 10 liters</b>	<b>8 940 138</b>
Suitable for	A30, A38, A40, W40, A41, W41, A45, A45t, W50, W50t, W55, W56, W56x
Working temperature range °C	-30 ... +90
Flash point °C	-
Fire point °C	-
Viscosity, (kinematic at +20 °C) mm <sup>2</sup> /s	4.07
Density (at +20 °C) g/cm <sup>3</sup>	1.08
Pour point °C	-70
Boiling point °C	+108
Ignition temperature °C	+430
Color	light yellow

<b>Order No. 5 liters</b>	<b>8 940 141</b>
<b>Order No. 10 liters</b>	<b>8 940 140</b>
Suitable for	PRESTO
Working temperature range °C	-60 ... +250
Flash point °C	>+120
Fire point °C	+142
Viscosity, (kinematic at +20 °C) mm <sup>2</sup> /s	5.66
Density (at +20 °C) g/cm <sup>3</sup>	0.92
Pour point °C	-100
Boiling point °C	+288
Ignition temperature °C	+350
Color	clear

<b>Order No. 5 liters</b>	<b>8 940 143</b>
<b>Order No. 10 liters</b>	<b>8 940 142</b>
Suitable for	PRESTO
Working temperature range °C	-90 ... +200
Flash point °C	>+80
Fire point °C	+126
Viscosity, (kinematic at +20 °C) mm <sup>2</sup> /s	2.16
Density (at +20 °C) g/cm <sup>3</sup>	0.91
Pour point °C	-120
Boiling point °C	+220
Ignition temperature °C	+300
Color	clear

### JULABO Thermal bath fluids based on silicone ...

... are chemically inert substances which do not affect metals like iron, copper, zinc, aluminum, chrome or nickel. Compared to other fluids, JULABO Thermal fluids have an extraordinarily low electrical conductivity. When properly stored, the fluids will last for 12 months and longer as they are not susceptible to climatic influences.

### JULABO Thermal bath fluids based on water-glycol ...

... (monoethylglycol with anti-corrosion additives) have excellent thermal characteristics and a low viscosity. In addition, they provide anti-freeze protection, i.e. they can be applied at temperatures below the freezing point of water.

### More information about JULABO Thermal bath fluids ...

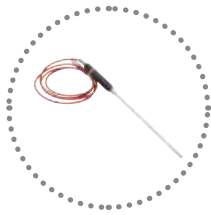
... in our brochure 'Thermal Bath Fluids' at [www.julabo.com](http://www.julabo.com).



## COST EFFICIENT: LESS THERMAL BATH FLUID

PRESTO instruments need less thermal bath fluid. Compared to conventional bath circulators, PRESTO uses less active heat exchanger volume. The hot or cold fluid does not come in contact with the surrounding air so a larger temperature range can be covered with only one thermal bath fluid.

## Accessories



### External Pt100 sensors/ Extension Cable

Order No.	Description	Suitable for
8 981 003	200 × 6 mm dia., stainless steel, 1.5 m cable	PRESTO
8 981 006	20 × 2 mm dia., stainless steel, 1.5 m cable	PRESTO
8 981 010	300 × 6 mm dia., stainless steel, 1.5 m cable	PRESTO
8 981 017	200 × 6 mm dia., stainless steel/PTFE coated, 3.0 m cable	PRESTO
8 981 015	300 × 6 mm dia., stainless steel/PTFE coated, 3.0 m cable	PRESTO
8 981 013	600 × 6 mm dia., stainless steel/PTFE coated, 3.0 m cable	PRESTO
8 981 016	900 × 6 mm dia., stainless steel/PTFE coated, 3.0 m cable	PRESTO
8 981 014	1200 × 6 mm dia., stainless steel/PTFE coated, 3.0 m cable	PRESTO
8 981 021	M+R in-line Pt100 sensor, 2 fittings M24 × 1.5 male, 1.5 m cable	PRESTO
8 981 022	M+R in-line Pt100 sensor, 2 fittings M30 × 1.5 male, 1.5 m cable	PRESTO
8 981 023	M+R in-line Pt100 sensor, 2 fittings M38 × 1.5 male, 1.5 m cable	PRESTO
8 981 103	Extension cable 3.5 m for Pt100 sensor	PRESTO
8 900 106	Module with Pt100 connection socket for second external Pt100 sensor	PRESTO (except A30)



### Metal tubing flexible, triple insulated, -100 °C to +350 °C

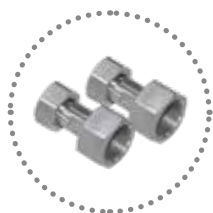
Order No.	Description	Suitable for
8 930 261	1.0 m Metal tubing, 2 fittings M24 × 1.5 female	PRESTO
8 930 262	1.5 m Metal tubing, 2 fittings M24 × 1.5 female	PRESTO
8 930 263	2.0 m Metal tubing, 2 fittings M24 × 1.5 female	PRESTO
8 930 264	3.0 m Metal tubing, 2 fittings M24 × 1.5 female	PRESTO
8 930 271	1.0 m Metal tubing, 2 fittings M30 × 1.5 female	PRESTO
8 930 272	1.5 m Metal tubing, 2 fittings M30 × 1.5 female	PRESTO
8 930 273	2.0 m Metal tubing, 2 fittings M30 × 1.5 female	PRESTO
8 930 274	3.0 m Metal tubing, 2 fittings M30 × 1.5 female	PRESTO
8 930 275	5.0 m Metal tubing, 2 fittings M30 × 1.5 female	PRESTO
8 930 282	1.5 m Metal tubing, 2 fittings M38 × 1.5 female	PRESTO
8 930 283	2.0 m Metal tubing, 2 fittings M38 × 1.5 female	PRESTO
8 930 284	3.0 m Metal tubing, 2 fittings M38 × 1.5 female	PRESTO
8 930 285	5.0 m Metal tubing, 2 fittings M38 × 1.5 female	PRESTO



### PTFE tubing -60 °C to +180 °C

Order No.	Description	Suitable for
8 930 140	1 m PTFE Tubing, 8 mm inner dia.	PRESTO
8 930 142	1 m PTFE Tubing, 12 mm inner dia.	PRESTO

## Adapters/Valves/Connectors etc.



Order No.	Description	Suitable for
8 890 110	Adapter M24 × 1.5 male to M24 × 1.5 male	PRESTO
8 890 111	Adapter M30 × 1.5 male to M30 × 1.5 male	PRESTO
8 890 112	Adapter M38 × 1.5 male to M38 × 1.5 male	PRESTO
8 890 120	2 Elbow fittings 90°, M24 × 1.5 female/male	PRESTO
8 890 121	2 Elbow fittings 90°, M30 × 1.5 female/male	PRESTO
8 890 122	2 Elbow fittings 90°, M38 × 1.5 female/male	PRESTO
8 890 034	2 Adapters M30 × 1.5 female to M16 × 1 male, stainless steel	PRESTO
8 890 035	2 Adapters M30 × 1.5 male to M16 × 1 male, stainless steel	PRESTO
8 890 052	2 Adapters M24 × 1.5 female to M16 × 1 male	PRESTO
8 890 053	2 Adapters M24 × 1.5 female to NPT 1/4" female	PRESTO
8 890 054	2 Adapters M24 × 1.5 female to NPT 3/8" female	PRESTO
8 890 055	2 Adapters M24 × 1.5 female to NPT 1/2" female	PRESTO
8 890 056	2 Adapters M24 × 1.5 female to NPT 3/4" female	PRESTO
8 890 057	2 Adapters M24 × 1.5 female to NPT 1" female	PRESTO
8 890 058	2 Adapters M24 × 1.5 female to NPT 1/4" male	PRESTO
8 890 059	2 Adapters M24 × 1.5 female to NPT 3/8" male	PRESTO
8 890 060	2 Adapters M24 × 1.5 female to NPT 1/2" male	PRESTO
8 890 061	2 Adapters M24 × 1.5 female to NPT 3/4" male	PRESTO
8 890 062	2 Adapters M24 × 1.5 female to NPT 1" male	PRESTO
8 890 063	2 Adapters M24 × 1.5 female to tube 1/4"	PRESTO
8 890 064	2 Adapters M24 × 1.5 female to tube 3/8"	PRESTO
8 890 065	2 Adapters M24 × 1.5 female to tube 1/2"	PRESTO
8 890 066	2 Adapters M24 × 1.5 female to tube 1"	PRESTO
8 890 067	2 Adapters M24 × 1.5 female/M24 × 1.5 female	PRESTO
8 890 068	2 Adapters M24 × 1.5 female/M30 × 1.5 male	PRESTO
8 890 069	2 Adapters M24 × 1.5 male/M30 × 1.5 female	PRESTO
8 890 070	2 Adapters M24 × 1.5 female/M30 × 1.5 female	PRESTO
8 890 071	2 Adapters M24 × 1.5 male/M16 × 1 female	PRESTO
8 890 072	2 Adapters M24 × 1.5 male to barbed fitting 12 mm	PRESTO
8 890 080	2 Adapters M30 × 1.5 female/M38 × 1.5 male	PRESTO
8 890 081	2 Adapters M30 × 1.5 male/M38 × 1.5 female	PRESTO
8 890 082	2 Adapters M30 × 1.5 female/M38 × 1.5 female	PRESTO
8 890 083	2 Adapters M30 × 1.5 female to NPT 3/4" male	PRESTO
8 890 084	2 Adapters M30 × 1.5 female to NPT 3/4" female	PRESTO
8 890 085	2 Adapters M30 × 1.5 female to NPT 1" male	PRESTO
8 890 086	2 Adapters M30 × 1.5 female to NPT 1" female	PRESTO



## Accessories



### Adapters/Valves/Connectors etc.

Order No.	Description	Suitable for
8 890 087	2 Adapters M30 × 1.5 female to tube 1"	PRESTO
8 890 088	2 Adapters M30 × 1.5 female/M30 × 1.5 female	PRESTO
8 890 089	2 Adapters M38 × 1.5 female/M38 × 1.5 female	PRESTO
8 890 100	2 Adapters M38 × 1.5 female to NPT 1" male	PRESTO
8 890 101	2 Adapters M38 × 1.5 female to NPT 1" female	PRESTO
8 890 102	2 Adapters M38 × 1.5 female to NPT 1 1/4" male	PRESTO
8 890 103	2 Adapters M38 × 1.5 female to NPT 1 1/4" female	PRESTO
8 890 104	2 Adapters M38 × 1.5 female to tube 1"	PRESTO
8 890 130	Twin distributing adapter M24 × 1.5, isolated, 1 × M24 × 1.5 female to 2 × M24 × 1.5 male	PRESTO
8 890 131	Quad distributing adapter M24 × 1.5, isolated, 1 × M24 × 1.5 female to 4 × M24 × 1.5 male	PRESTO
8 890 132	Twin distributing adapter M30 × 1.5, isolated, 1 × M30 × 1.5 female to 2 × M30 × 1.5 male	PRESTO
8 890 133	Quad distributing adapter M30 × 1.5, isolated, 1 × M30 × 1.5 female to 4 × M30 × 1.5 male	PRESTO
8 890 134	Twin distributing adapter M38 × 1.5, isolated, 1 × M38 × 1.5 female to 2 × M38 × 1.5 male	PRESTO
8 890 135	Quad distributing adapter M38 × 1.5, isolated, 1 × M38 × 1.5 female to 4 × M38 × 1.5 male	PRESTO
8 890 140	Twin distributing adapter M24 × 1.5, 1 × M24 × 1.5 female to 2 × M24 × 1.5 male	PRESTO
8 890 141	Quad distributing adapter M24 × 1.5, 1 × M24 × 1.5 female to 4 × M24 × 1.5 male	PRESTO
8 890 142	Twin distributing adapter M30 × 1.5, 1 × M30 × 1.5 female to 2 × M30 × 1.5 male	PRESTO
8 890 143	Quad distributing adapter M30 × 1.5, 1 × M30 × 1.5 female to 4 × M30 × 1.5 male	PRESTO
8 890 144	Twin distributing adapter M38 × 1.5, 1 × M38 × 1.5 female to 2 × M38 × 1.5 male	PRESTO
8 890 145	Quad distributing adapter M38 × 1.5, 1 × M38 × 1.5 female to 4 × M38 × 1.5 male	PRESTO
8 970 495	2 Collar nuts M24 × 1.5	PRESTO
8 970 496	2 Collar nuts M30 × 1.5	PRESTO
8 970 497	2 Collar nuts M38 × 1.5	PRESTO
8 970 850	Shut-off valve M16 × 1 female/male, -60 °C ... +200 °C	PRESTO
8 970 851	Shut-off valve M24 × 1.5 female/male, -60 °C ... +200 °C	PRESTO
8 970 852	Shut-off valve M30 × 1.5 female/male, -60 °C ... +200 °C	PRESTO
8 970 853	Shut-off valve M38 × 1.5 female/male, -60 °C ... +200 °C	PRESTO



### Self-sealing coupling

Order No.	Description	Suitable for
8 980 710	Self-sealing coupling (-20 °C ... +200°C) Connection M16×1 male Connection temperature: +20 °C Laser engraving with temperature range Materials: Stainless steel Seal: FKM	PRESTO
8 980 711	Self-sealing adapter (-20 °C ... +200°C), Connection M16×1 male Connection temperature: +20 °C Laser engraving with temperature range Materials: Stainless steel Seal: FKM	PRESTO
8 980 712	Self-sealing coupling (-20 °C ... +200°C), Connection M24×1.5 male Connection temperature: +20 °C Laser engraving with temperature range Materials: Stainless steel Seal: FKM	PRESTO
8 980 713	Self-sealing adapter (-20 °C ... +200°C), Connection M24×1.5 male Connection temperature: +20 °C Laser engraving with temperature range Materials: Stainless steel Seal: FKM	PRESTO



Order No.	Description	Suitable for
8 980 714	Self-sealing coupling (-45 °C ... +220°C), Connection M16×1 male Connection temperature: +20 °C, Laser engraving with temperature range Materials: Stainless steel 1.4404/1.4571 or equivalent Seal: FFKM	PRESTO
8 980 715	Self-sealing adapter (-45 °C ... +220°C), Connection M16×1 male Connection temperature: +20 °C Materials: Stainless steel 1.4404/1.4571 or equivalent Seal: FFKM	PRESTO
8 980 716	Self-sealing coupling (-45 °C ... +220°C), Connection M24×1.5 male Connection temperature: +20 °C, Laser engraving with temperature range Materials: Stainless steel 1.4404/1.4571 or equivalent Seal: FFKM	PRESTO
8 980 717	Self-sealing adapter (-45 °C ... +220°C), Connection M24×1.5 male Connection temperature: +20 °C, Laser engraving with temperature range Materials: Stainless steel 1.4404/1.4571 or equivalent Seal: FFKM	PRESTO
8 980 720	Self-sealing coupling (-45 °C ... +220°C), Connection male Connection temperature: +20 °C, Laser engraving with temperature range Materials: Stainless steel 1.4404/1.4571 or equivalent Seal: FFKM Double-sided shut-off clean-break technology (low-loss and low-inclusion operation)	PRESTO
8 980 721	Self-sealing adapter (-45 °C ... +220°C), Connection M16×1 male Connection temperature: +20 °C, Laser engraving with temperature range Materials: Stainless steel 1.4404/1.4571 or equivalent Seal: FFKM Double-sided shut-off clean-break technology (low-loss and low-inclusion operation)	PRESTO
8 980 722	Self-sealing coupling (-45 °C ... +220°C), M24×1.5 außen Kuppeltemperatur: +20 °C, Lasergravur mit Temperaturbereich Werkstoff: Edelstahl 1.4404/1.4571 oder gleichwertig Dichtung: FFKM Beidseitig absperrende Clean-Break-Technologie (verlust- und einschlussarme Betätigung)	PRESTO
8 980 723	Self-sealing adapter (-45 °C ... +220°C), Connection M24×1.5 male Connection temperature: +20 °C, Laser engraving with temperature range Materials: Stainless steel 1.4404/1.4571 or equivalent Seal: FFKM Double-sided shut-off clean-break technology (low-loss and low-inclusion operation)	PRESTO
8 980 724	Self-sealing coupling (-45 °C ... +220°C), Connection M30×1.5 male Connection temperature: +20 °C, Laser engraving with temperature range Materials: Stainless steel 1.4404/1.4571 or equivalent Seal: FFKM Double-sided shut-off clean-break technology (low-loss and low-inclusion operation)	PRESTO
8 980 725	Self-sealing adapter (-45 °C ... +220°C), Connection M30×1.5 male Connection temperature: +20 °C, Laser engraving with temperature range Materials: Stainless steel 1.4404/1.4571 or equivalent Seal: FFKM Double-sided shut-off clean-break technology (low-loss and low-inclusion operation)	PRESTO



## External expansion vessels

Order No.	Description	Suitable for
8 970 832	External expansion vessel, 3 liters	A30, A40, W40, W41
8 970 833	External expansion vessel, 3 liters	A45, A45t, W50, W50t, W55, A80, A80t, W80, W80t, A85, A85t, W85, W85t



## Filter mats

Order No.	Description	Suitable for
8 970 920	Filter mat	A30
8 970 921	Filter mat	A40, A41
8 970 922	Filter mat	A80
8 970 923	Filter mat	A45
8 970 924	Filter mat	A85

## Accessories



### Cooling water connection

Order No.	Description	Suitable for
8 930 312	1 m Reinforced tubing (pressure proof) 1/2" inner dia.	W40, W80
8 970 482	2 Tube clamps	W40, W80
8 920 000	Particle filter for cooling water circuit	W40, W41, W50, W50t, W55, W80, W80t, W85, W85t, W91, W92 and W93-Modelle
8 930 331	1.5 m Flexible braided tubing G 3/4" (-30 ... +100 °C) with 2 straight fittings with cap nut for cooling water connection	Water-cooled units
8 930 332	2 m Flexible braided tubing G 3/4" (-30 ... +100 °C) with 2 straight fittings with cap nut for cooling water connection	Water-cooled units
8 930 341	1.5 m Flexible braided tubing G 3/4" (-30 ... +100 °C) 1 straight fitting / 1 elbow fitting 90°, both with cap nut for cooling water connection	Water-cooled units
8 930 342	2 m Flexible braided tubing G 3/4" (-30 ... +100 °C) 1 straight fitting / 1 elbow fitting 90°, both with cap nut for cooling water connection	Water-cooled units



### Connection plugs

Order No.	Description	Suitable for
8 980 131	External Pt100 connector	PRESTO
8 980 133	Standby connector 3 pin	PRESTO with electronic module 8 900 105
8 980 135	Alarm connector 5 pin	PRESTO
8 980 136	REG+EPROG connector 6 pin	PRESTO with electronic module 8 900 105



### Interfaces/Software & Hardware

Order No.	Description	Suitable for
8 900 105	Electronic module with analog connectors (Input, Output, Standby-In)	PRESTO
8 900 020	Profibus DP Interface	PRESTO
8 900 024	RS485 Interface	PRESTO
8 980 771	Pressure sensor, 2 fittings M24 x 1.5 male (-95 ... +250 °C)	PRESTO
8 980 772	Pressure sensor, 2 fittings M30 x 1.5 male (-95 ... +250 °C)	PRESTO
8 980 773	Pressure sensor, 2 fittings M38 x 1.5 male (-95 ... +250 °C)	PRESTO
8 970 815	Sight glass, -100...+280 °C, PN16/Class 230, 2 fittings M30 x 1.5 male	PRESTO
8 901 102	EasyTEMP Software (free of charge at <a href="http://www.julabo.com">www.julabo.com</a> )	PRESTO
8 901 105	EasyTEMP Professional Software, incl. USB-Dongle	PRESTO
9 900 112	USB 2.0 Repeater extension cable, length 5 m	PRESTO
9 900 114	USB 2.0 Repeater extension cable, length 10 m	PRESTO