

## PRESTO A45t Process system

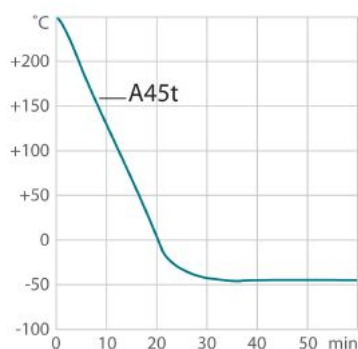
The A45 air-cooled process system can be used flexibly and independently of cooling water supply. They compensate exothermic and endothermic reactions extremely quickly.

### Product features

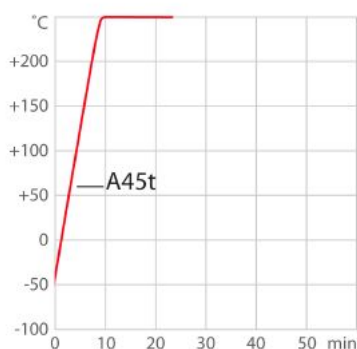
- For highly precise, external temperature applications
- Rapid heating and cooling
- Wide working temperature ranges without changing fluids
- Highest performance with small footprint
- Space-saving design optimizes space utilization in your lab
- Heating capacity up to 12 kW
- Cooling capacity up to 3.5 kW
- 5,7" industrial color TFT touch screen
- Ports for USB, Ethernet, RS232, Modbus
- SD-Card slot
- Analog connections, RS485, Profibus DP (accessory)



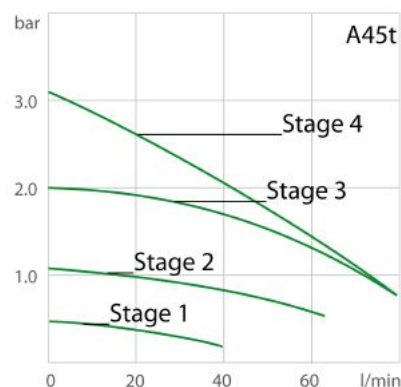
### Cool-down time



### Heat-up time



### Pump capacity



### Performance values

400V/3PNPE/50Hz (Plug 32A CEE)

Heating capacity kW	12
Viscosity max. cST	50
Pump capacity flow rate l/min	35 ... 76
Pump capacity flow pressure bar	0.48 ... 3.2
Power A	22

Order No.		9420452.07.T					
Cooling capacity (Ethanol)							
°C	200	20	0	-10	-20	-30	-40
kW	3.4	3.5	3.3	2.6	1.8	1	0.3
Refrigerant stage 1							
Refrigerant		R452A					
Filling volume g		1320					
Global Warming Potential for R452A		2140					
Carbon dioxide equivalent t		2.825					

208V/3PPE/60Hz (Without Plug)

Heating capacity kW					10		
Viscosity max. cST					50		
Pump capacity flow rate l/min					35 ... 76		
Pump capacity flow pressure bar					0.48 ... 3		
Power A					39		

Order No.		9420452.16.T					
Cooling capacity (Ethanol)							
°C	200	20	0	-10	-20	-30	-40
kW	3.4	3.5	3.1	2.5	1.8	0.7	0.2
Refrigerant stage 1							
Refrigerant		R449A					
Filling volume g		1050					
Global Warming Potential for R449A		1397					
Carbon dioxide equivalent t		1.467					

## Technical data

Available voltage versions		Cooling	
Order No.	9 420 452.T	Cooling of compressor	1-stage Air
Available voltage versions:			
9420452.07.T	400V/3PNPE/50Hz (Plug 32A CEE) (R452A)		
9420452.16.T	208-230V/3PPE/60Hz (Without Plug) (R449A)		
9420452.06.T	230V/3PPE/50Hz (Plug 63A CEE) (R452A)		
Other		Electronics	
Sound pressure level dbA	69	External pt100 sensor connection	integrated

Classification	Classification III (FL)	2nd external Pt100 sensor connection	accessory
IP Code	IP 20	Integrated programmer	8x60 steps
Pump type	Centrifugal Pump	Temperature control	ICC
Pump type Magnetically coupled	1	Absolute temperature calibration	3 Point Calibration
		Temperature display	5.7" TFT Touchscreen
		Temperature setting	Touchscreen

Dimensions and volumes	
Internal usable expansion volume l	7.5
Minimal process volume l	7.5
Active heat exchanger volume l	3.5
Weight kg	210
Dimensions cm (W x L x H)	53 x 66.5 x 126
Pump connections	M30x1.5 male

Temperature values	
Setting the resolution of the temperature display °C	0.01
Working temperature range °C	-45.0 ... +250.0
Temperature stability °C	+/-0.05 ... +/-0.1
Ambient temperature °C	+5.0 ... +40
Temperature display resolution °C	0.01

## All Benefits



### Touch display. Perfect operation.

With the touch display, the user always has an overview of all values and functions. The intuitive and multilingual menu structure enables perfect control.



### 100 % Cooling capacity

'Active Cooling Control' for cooling available throughout the entire working temperature range, fast cool-down even at higher temperatures



### Full control

'Temperature Control Features', for individual optimization, access to all important control parameters, additional settings for band limit, limits, co-speedfactor etc.



### Highest measuring accuracy

'Absolute Temperature Calibration' for manual compensation of a temperature difference, 3-point calibration



### Many interfaces.

Straight-forward remote control, data management, and integration into process structures. USB, Ethernet, RS232, SD card, and alarm off are permanently integrated. Further interfaces available as accessories.



### Continuous operation up to +40 °C

Robust temperature control instrument, continuous operation even at ambient temperatures of up to +40 °C



### Convenience for several users

Administrator level for customizing instrument settings, user levels with limited permissions for fast and safe defined access, password protection, all levels adjustable



### Intelligent temperature control.

Intelligent cascade control - automatic and self-optimizing adaptation of the PID control parameters with external stability of +/- 0.05 °C.



### Control of the external application

External Pt100 sensor connection for precise measurement and control directly in the external application



### Intelligent pump system

Reliable and consistent pump capacity, electronically adjustable pump stages or pressure value, automatic adjustment of pump capacity to viscosity



### Space-saving footprint

All connections as well supply and exhaust air are located at the front or rear, no venting grids on the sides, units can be placed close to each other or the application



### Maximum safety.

Classification III according to DIN12876-1 enables safe operation, even with flammable fluids. Automatic switch-off in the event of high temperature or low liquid level.



**Duplicate safety**

Adjustable high temperature cut-off for internal tank and for integrated expansion vessel



**For flammable bath fluid**

Classification III (FL) according to DIN 12876-1



**Quick support**

If an error occurs, the integrated Black-Box function permits fast diagnosis by the JULABO service team



**100% Checked.**

100% testing. 100% quality. Each JULABO Circulator undergoes thorough quality testing before leaving the factory.



**Green technology.**

Development consistently applied environmentally friendly materials and technologies.



**JULABO. Quality.**

Highest standards of quality for a long product life.



**Quick start.**

Individual JULABO consultation and comprehensive manuals at your disposal.



**Satisfied customers.**

11 subsidiaries and more than 100 partners worldwide guarantee fast and qualified JULABO support.



**Services 24/7.**

Around the clock availability. You can find suitable accessories, data sheets, manuals, case studies, and more at [www.julabo.com](http://www.julabo.com).