

Personal Organic Synthesizer Process Station PPS-1510 • 2510



Process Station is a 5-position organic synthesizer which is designed to improve the efficiency of process development of new reactions and catalysis, examination of reaction conditions and synthesis of intermediates.

Individual setting of the temperature for each position enables examining by 5 types of temperature conditions simultaneously, allowing to achieve the most effective synthesis route.

PPS-1510 and PPS-2510 are also equipped with reflux and gas exchange functions required for organic synthesis, in addition to temperature control and stirring. Synthesis scale can be changed by changing the aluminium blocks. There are such options available for post-processing, e.g. a set of operations for liquid-liquid extraction and concentration without exchanging containers.

Features

- Available number of reaction vessels are max. 5 tubes.
- Five heating positions enable to set 5 different temperatures. (-10°C to 150°C)
- Synthesis working volume is 1-4mL x 5 (PPS-1510 or 10-30mL x 5 (PPS-2510)).
- Strong and stable vortex stirring can be executed by a powerful stirrer, making it possible to efficiently stir highly viscous liquids.

Specifications

Product name		Personal Organic Synthesizer (Process Station)						
Model		PPS-1510		PPS-2510				
Cat. No		198579	198578	198589	198588			
Available number of reaction vessel		1 to 5 pieces						
Synthesis scale		1mL to 4mL (Variable)		10mL to 30mL (Variable)				
Stirring system		Ferromagnetic stirrer						
Performance	Temperature control range	-10°C to 50°C (5*individual control)						
	Accuracy of temperature control	±0.5°C						
	Range of stirring speed	Approximately 250 to 1600rpm at 4mL volume of water		Approximately 250 to 1300rpm at 30mL volume of water				
Functions	Temperature setting, display	Membrane key pad input, digital display						
	Setting of stirring speed	Volume input, digital display						
	Gas substitution	By reducing pressure and replacing air with inert condition						
	Reflux	The cooling water-cooled aluminium reflux head provides efficient condensing and refluxing						
	Sample injection	Pipette, syringe, dropping funnel under inert condition						
Safety features	Reaction observation	Through the slit of the aluminium block						
	Safety features	Double chamber, Fuse, Dew tray, Individual overheat protectors (5), Thermo protector for empty heating						
Specifications	Materials of sample contacting parts	Borosilicate glass (DURAN), teflon, perfluoro						
	Connection of cooling water	OD 10.5mm hose end						
	Size of reaction tubes (mm)	ø15*150 (with rim)		ø30*200H (with rim)				
	Size of the magnetic stirring bars	ø10*5Hmm (cross bar)		ø20*7Hmm (cross bar)				
	Ground joint	TS 15/25						
	Ambient temperature	5°C to 35°C						
Overall dimensions (mm)	465(W)*310(D)*415(H)		465(W)*310(D)*465(H)					
	Weight		21kg		23kg			
Power source	AC115V		AC220V		AC115V		AC220V	
					600VA			
Components	Teflon caps	PPS-15TC Cat.No.195189		PPS-25TC Cat.No.195199				
	Aluminium block	PPS-15A Cat.No.193849		PPS-25A Cat.No.193859				
	Double chamber	PPS-15W Cat.No.212669		PPS-25W Cat.No.210399				
	Cooling cartridge	PPS-15LT Cat.No.212679		PPS-25LT Cat.No.210389				
Temp & Stirring control unit	PPS-CTRL Cat.No.191769		PPS-CTRL Cat.No.191768		PPS-CTRL Cat.No.191769		PPS-CTRL Cat.No.191768	

* 5 different temperatures can be set for each heating block.
* When conducting temperature control or reflux at room temperature or lower, the unit needs to be connected to low temperature circulator.

Operation of the temperature controller



Individual temperature range setting from -10°C to 150°C for each controller.

Standard system



Variable synthesis scale

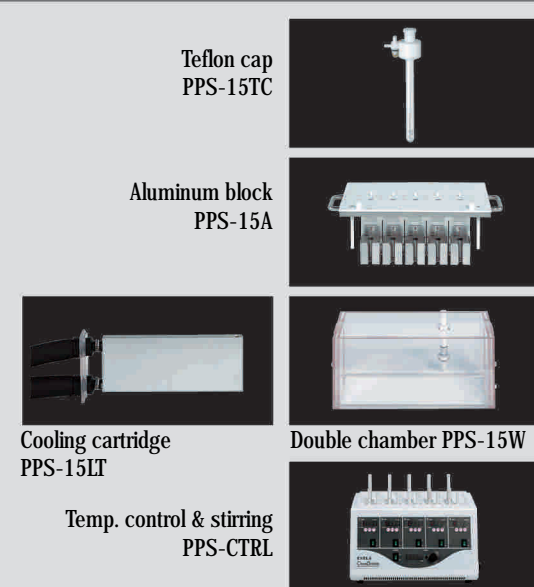
Temperature controller and stirring unit are integrated and common to all models.

By changing such parts as Teflon cap and aluminium block, synthesis scale can be changed.

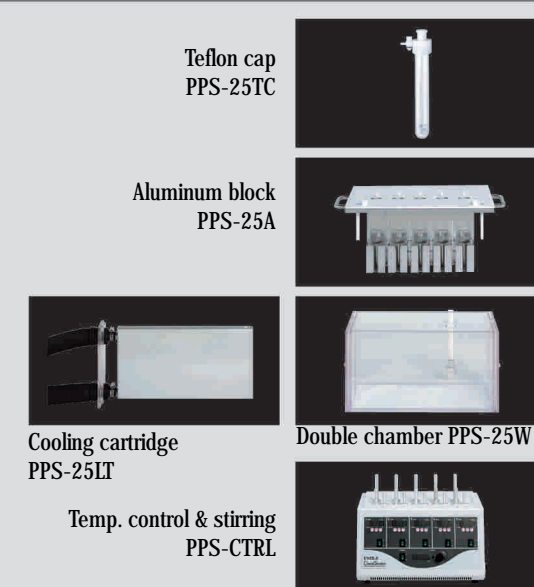
Standard Accessories

Teflon caps	Septum sealing(x 5), Three-way cock(x 2), Piping set
Aluminium block	Test tube(x 10), Stirrer(x 5)
Double chamber	—
Cooling cartridge	Cold insulation hose set (Silicone ø9 x 2m, 2pcs)
Temp. & Stirring control unit	Fuse(x 1), Earthing adapter(x 1)

Components(PPS-1510)



Components(PPS-2510)



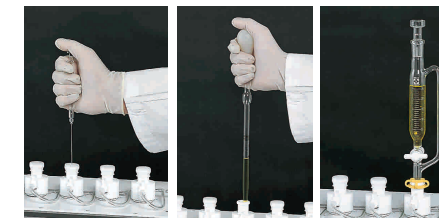
Variable synthesis scale. Improved work efficiency

Cooling cartridge

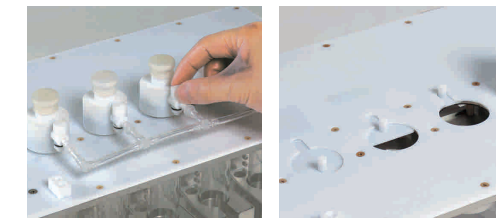


The dew preventive cooling cartridge does not need complicated connections of the cold water circulation hoses.

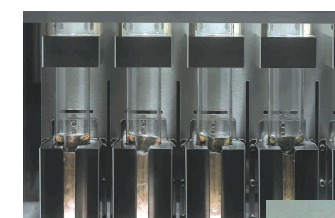
Manual reagent injection



Gas purging



The gas piping tube is made of Teflon. Teflon shutter for preventing dew



Powerful stirring and reaction Observation window



Cross shaped stirring bar



Aluminium block



Double chamber



Teflon made drip water receiving tray.

Double chamber



Independent overheat protector (-10 to 150°C)



The temperature can be controlled independently



The loading slot of a double chamber accepts both right and left side insertion.