

# Hydrothermal Autoclave

Brand- **BIOGENIX**<sup>®</sup>



## Product Description

The Hydrothermal Autoclave Reactor is used to carry out hydrothermal reactions at high pressure and high temperature. Hydrothermal synthesis reactors generally come in two varieties: the first is Polytetrafluoroethylene (PTFE) or Teflon-lined hydrothermal autoclave reactors, and the second is PPL-lined autoclave. Hydrothermal reactors are mainly made up of two parts: an outer high-quality stainless steel jacket and an inner Teflon liner or Teflon chamber. In the Teflon-lined autoclave, the reaction is carried out at a maximum of 240-degree Celsius (428 Fahrenheit), while the safe temperature is 200-degree Celsius (392 Fahrenheit). PPL-lined reactors are used for reactions that operate at higher temperatures, where the safe temperature will be 260-degree Celsius (500 Fahrenheit) and the maximum operating temperature is 280-degree Celsius (536 Fahrenheit). This product is extensively used in scientific laboratories, research and development labs, institutional organizations, quality analysis sections in industries, etc.

## Features

- Material: Shell made of high-quality nonmagnetic 304 stainless steel
- Easy to handle
- Threads are very smooth to lock and unlock
- Can be customized as per requirement
- Primary screw type cap for basic tightening
- Best price and cost effective
- Secondary cap has been provided at the top of the reactor for extra tightening to avoid leakage
- Customized stainless steel jacket/autoclave of SS 316 can also be provided if needed, which is better for corrosive materials.



## Specification

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Max. Operating temperature	250°C
Working Pressure	<3 Mpa or 30 Bar
Heating and Cooling Rate	< 50°C/min
Material	Shell made of high - quality nonmagnetic 304 stainless steel
Operating System	Easy to handle
Capacity	150 ml , 200 ml

### How to use it

- Pour the reaction into the reactor kettle, and to ensure feeding coefficient is less than 0.8.
- You should put the corrosive reaction into PTFE bush, be assured kettle body from corrosion.
- Hydrothermal synthesis reactor will be placed on the heater, in accordance with the provisions of the heating rate of heating to the desired reaction temperature (less than the required safety temperature).
- When finishing heating and need to cool, it's also in strict accordance with the provisions of the cooling rate operation, to facilitate the safety and reactor life.
- After confirmation of intra-abdominal temperature below the boiling point solvents reaction system, it could be allowed to be open tank lid and do a follow-up operation.
- Hydrothermal synthesis reactor each time after use to clean, to avoid corrosion. Kettle body, kettle lid seal line to pay particular attention to clean and prevent damage to the bumps.

### Uses :-

Hydrothermal Autoclave Reactor is use to carry **hydrothermal reaction at high pressure and high temperature**. It is also known as Hydrothermal synthesis reactor, digestion or pressure melting bombs, hydrothermal synthesis reactor, high temperature and pressure digestion vessels.



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Dealer Details