Glass Reactor

Capacity(L) : 1 – 200
Single-layer / Dual-layer / Triple-layer
Manual lift / Electric lift Optional

Single-Layer Glass Reactor

1~100 Liter Available

Dual-Layer Glass Reactor

1~200 Liter Available

Triple-Layer Glass Reactor

New upgrade

Electric Lift Glass Reactor

10~50 Liter Available

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Single-Layer Glass Reactor

Volume

1~100 Liter Available

Structure

- Desktop
- Hemispherical bottle with frame
- Cylindrical bottle with frame

Two Heating Method

- Water & Oil Bath(Up to 250℃)
- Heating Mantle(Up to 350℃)

Single-layer glass reactor uses a water/oil bath or heating mantle to directly heat the vessel, allowing materials to react at a constant temperature with stirring. It enables reactions under atmospheric or negative pressure, with reflux, distillation, and extraction capabilities in a sealed environment.

Technical Parameters Of Single-Layer Glass Reactor

Model	F-1L	F-2L	F-3L	F-5L	F-10L
Capacity(L)	1	2	3	5	10
Heating Power(kW)	0.8	1.5	1.8	2	3
Constant Pressure Drop Funnel	250ml				1000ml
Temperature Range(℃)	RT-250 (Heating in water & oil bath) RT-350 (Heating with heating mantle)				
Voltage	220V/50Hz or 380V/50Hz (110V/60Hz Optional)				
Optional	·Ex-proof Motor,Ex-proof Controller				
	·Plug Type				
	·PTFE spraying anti-corrosion treatment				

Technical Parameters Of Single-Layer Glass Reactor

Model	F-20L	F-30L	F-50L	F-80L	F-100L
Capacity(L)	20	30	50	80	100
Heating Power(kW)	4.5		6	9	9
Constant Pressure Drop Funnel	1000ml	2000ml			
Temperature Range(℃)	RT-250 (Heating in water & oil bath) RT-350 (Heating with heating mantle)				
Voltage	220V/50Hz or 380V/50Hz (110V/60Hz Optional)				
Optional	·Ex-proof Motor,Ex-proof Controller				
	·Plug Type				
	·PTFE spraying anti-corrosion treatment				

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Dual-Layer (JACKETED) Glass Reactor

Volume

1~200 Liter Available

Advantages

- Double-layer condenser
- Pure copper coil
- Smart control system
- Intelligent digital display system
- High borosilicate glass
- PTFE discharge valve
- All parts contact material use PTFE

The jacketed glass reactor features double-layer glass. The inner layer holds the reaction solvent for stirring, mixing, and filtering, while the outer layer connects to heating or cooling sources for temperature control during the reaction.

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Technical Parameters Of Dual-Layer Glass Reactor

Model	S-1L	S-2L	S-3L	S-5L	S-10L	S-20L
Reaction Capacity	0.1~1L	0.2~2L	0.5~ 3L	0.5~ 5L	2L~ 10L	2L~ 20L
Jacketed Volume(L)	1	1.5	1.5	2	3	6
Port no. on the lid	4+1				5+1	
Temperature Range	-120~+300 ℃					
Constant Pressure Drop Funnel	250ml				1000ml	
Stirring Speed(rpm/min)	0-1200				0-600	
Voltage	220V/50Hz or 380V/50Hz (110V/60Hz Optional)					
Dimension(mm)	440*360 *1325		520*500 *1510		670*690 *1920	720*700 *2020
Optional	·Receiving Flask					
	·Filter Device					
	·Rectification System					
	·Ex-proof Motor,Ex-proof Controller					
	·Plug Type					
	·PTFE spraying anti-corrosion treatment					

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Technical Parameters Of Dual-Layer Glass Reactor

Model	S-30L	S-50L	S-80L	S-100L	S-150L	S-200L
Reaction Capacity	5L~ 30L	5L~ 50L	10L~ 80L	10L~ 100L	25L~ 150L	30L~ 200L
Jacketed Volume(L)	10	16	24	30	35	40
Port no. on the lid	5+1					
Temperature Range	-120~+300 ℃					
Constant Pressure Drop Funnel	1000ml		2000ml		5L	
Stirring Speed(rpm/min)	0-600					
Voltage	220V/50Hz or 380V/50Hz (110V/60Hz Optional)					
Dimension(mm)	650*750 *2400	750*700 *2450	770*720 *2480	780*730 *2500	1240*1140 *3100	1300*950 *3100
Optional	·Receiving Flask					
	·Filter Device					
	·Rectification System					
	·Ex-proof Motor,Ex-proof Controller					
	·Plug Type					
	·PTFE spraying anti-corrosion treatment					

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Triple-Layer Glass Reactor

Recommended Supporting Equipment

- High and LowTerperature CirculatingDevice
- Chiller
- Vacuum Pump
- High Temperature Circulating Water/oil Bath

Application

- Triple layer glass reactor with heating and cooling source circulating in jacket.
- Reflux, distillation under vacuum, separation, rectification, and crystallization are also available with related configurations.
- It's applied for heating and cooling synthesis reaction in vacuum conditions.
- It is an ideal equipment for chemistry, fine-chemical,bio-pharmaceuticals, and the synthesis, test, and production of new materials.

A triple-layer glass reactor allows heating and cooling through its jacket and can be operated under negative pressure. A constant pressure funnel or regulating valve controls the precise addition of materials, while the condenser's heat exchange function enables the distillation and recovery of reaction products.

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Electric Lift Glass Reactor

Volume

10~50 Liter Available

Advantages

- Ease of Use: Electric lifting allows easy adjustment of the reactor's height with minimal effort.
- Safety: Reduces manual handling risks by automating the lifting process.
- Efficiency: Quick and precise height adjustments save time during reactions.
- Flexibility: Easily adapts to different process requirements like mixing and heating.
- Durability: Built for heavy-duty use with reliable, consistent performance..
- Ergonomics: Reduces operator strain by eliminating manual lifting.
- Automation: Compatible with digital control systems for streamlined operations.

Traditional glass reactors are difficult to clean and provide sub-optimal mixing. Our electric lift glass reactor offers easy disassembly and improved material handling, making it ideal for synthesis, distillation, and concentration experiments. Widely used in the pharmaceutical, chemical, petrochemical, and new material industries, it excels in pharmaceutical synthesis and fine chemical processes.

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Technical Parameters Of Electric Lift Glass Reactor

Model	SJ-10L	SJ-20L	SJ-30L	SJ-50L
Reaction Capacity	10L	20L	30L	50L
Jacketed Volume(L)	8	7	9	16
Port no. on the lid	5+1			
Temperature Range	-80~+250℃			
Stirring Speed(rpm/min)	0-450			
Voltage	220V/50Hz or 380V/50Hz (110V/60Hz Optional)			
Dimension(mm)	700*850*2250	750*920*2400	750*950*2700	750*950*2950
Optional	·Receiving Flask			
	·Filter Device			
	·Rectification System			
	·Ex-proof Motor,Ex-proof Controller			
	·Plug Type			
	·PTFE spraying anti-corrosion treatment			

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CUSTOMIZED CASES

- Explosion-proof
- PTFE spraying anti-corrosion treatment
- Filtration and crystallization
- Customized thermal jacket
- Electric Lift
- Other customized service

We offer customized glass reactors to meet unique customer needs. For hazardous environments, we provide explosion-proof reactors, and for aggressive chemicals, PTFE-coated reactors for superior corrosion resistance. Custom assemblies for filtration and crystallization are available, along with reactors featuring thermal jackets for precise temperature control. These options ensure optimal performance and reliability tailored to your specific requirements.

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ONE-STOP TURNKEY SOLUTION

Recommended Supporting Equipment

- High and LowTerperature CirculatingDevice
- Chiller
- Vacuum Pump
- High Temperature Circulating Water/oil Bath

Glass reactors are typically integrated with high and low temperature circulators, chillers, vacuum pumps, and high-temperature water or oil baths for optimal operation. We offer a one-stop solution, allowing you to source all necessary equipment directly from us.

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Features

- Corrosion Resistance: Made from high-quality borosilicate glass, these reactors resist chemical corrosion, enduring harsh chemicals like acids and bases without degrading.
- Transparency: The clear glass design allows easy observation of reactions, making it ideal for monitoring color changes or precipitate formation.
- High Temperature Resistance: Borosilicate glass handles extreme temperatures, from -80°C to 250°C, making it suitable for various reactions.
- Precise Temperature Control: The jacketed design ensures precise temperature regulation, with heating or cooling fluids circulating to maintain consistent conditions.
- Efficient Mixing: The stirrer provides effective mixing, improving reactant contact, speeding up reactions, and enhancing yields.
- Frequency Conversion Motor: Ensures stable operation, large torque, automatic boosting, with no sparks or noise, and long service life.
- Easy Maintenance: The smooth, non-reactive glass surface simplifies cleaning and reduces the risk of cross-contamination.