

## Double-Layer Glass Reactor AST-5L



### Features

1. This product features a unique design with an all-stainless steel frame structure (featuring precision-engineered tee and cross fittings at connection points), ensuring a compact, sturdy, and non-deforming build that is easy to move.
2. All parts in contact with materials are made of high borosilicate glass (expansion coefficient 3.3) and PTFE materials, offering stable performance, minimal risk of chemical reactions with materials, and convenient, safe operation.
3. The unique variable frequency speed control allows for precise and flexible operation at high, medium, and low speeds. An optional fully explosion-proof system is available, featuring a dual-display explosion-proof box that digitally shows both rotational speed and vessel material temperature. It offers stable performance, clear display of control and data interfaces, and simple operation.
4. The stirring system employs ceramic bearings and mechanical seals to prevent wear and debris shedding from the stirring rod. It is resistant to high



temperatures and wear, with excellent sealing performance.

5. Incorporates PT100 temperature sensors and glass thermometer sleeves.

6. Vacuum pressure gauge displays real-time vacuum levels with pointer indication.

7. Crescent-shaped stirrer blades: 304 stainless steel + PTFE blades; stirrer shaft made of 304 stainless steel. PTFE-coated outer tube provides high strength and superior corrosion resistance.

8. Glass + PTFE discharge valve enables side discharge without liquid accumulation, facilitating rapid solution recovery.

9. Equipped with swivel casters with brakes at the base for easy overall mobility and operation.

Technical parameters:

Model	AST-5L
Effective Chamber Volume (L)	5L
Jacket Volume (L)	Approx. 1.5L
Voltage	220V 50Hz
Glass Components	High borosilicate glass 3.3
Chamber Temperature Range	-80°C ~ +250°C
Temperature Measurement Accuracy	± 1°C
Constant Pressure Funnel Volume (L)	0.5L
Condenser Specifications	Φ 60 × 450H (mm)
Condenser Heat Exchange Area (m <sup>2</sup> )	0.15 m <sup>2</sup>
Condenser Circulation Port Size	12mm
Chamber Maximum Pressure (MPa)	-0.1-0.0

Jacket Maximum Pressure (MPa)		$\leq 0.03$
Mixing motor	Rated Power (W)	90W
	Speed Control Method	Electronic speed control
	Speed Adjustment Range (rpm)	0-600rpm/min
Pot lid opening	Agitation Port	50# flange
	Constant Pressure Funnel Port	29# ground joint
	Vent Port	24# ground joint
	Condenser Connection Port	35# ball mill joint
	Temperature Measurement Port	24# ground joint
Main Frame Material		SU304 Stainless Steel + Fluororubber Flange
Agitator Blade		$\Phi 10\text{mm}$ Blade Spread 120mm
Tank Liquid Inlet/Outlet Port Specifications	35mm Outer Diameter Flange with 4-inch External Thread Stainless Steel Oil Inlets/Outlets	
Temperature Sensor		PT100, Glass Thermometer Protection Tube Length 380mm
Vacuum Port Dimensions		10mm
Discharge Valve		Non-accumulating discharge valve
Operating Ambient Temperature ( °C)		5-35
Machine Footprint Dimensions (mm)		400L × 500W × 1500H ( mm )
Packaging Dimensions (mm)		1370L × 570W × 470H ( mm )
Total Weight (kg)		49.5Kg

