



TORONTECH



JACKETED LIFTING GLASS REACTOR

Jacketed Lifting Glass Reactor is primarily designed for tasks like material synthesis, distillation, and concentration. It features a dual-layer structure, with an inner and outer layer, enabling precise temperature control by circulating liquid at the required temperature through the jacket. Components above the vessel cover—including the stirring mechanism, condensation system, and dripping assembly—can be adjusted vertically. The vessel itself can be rotated approximately 150 degrees to the left, making it easier to pour contents directly and clean efficiently.

APPLICATIONS

The Torontech Jacketed Lifting Glass Reactor is engineered to provide maximum operational flexibility and ergonomic efficiency for laboratory and pilot-scale chemical processes. Its unique lifting and tilting capabilities are designed to simplify and accelerate critical tasks like product harvesting, cleaning, and reactor change-out. This makes it an ideal solution for multi-product, multi-process environments where minimizing downtime and ensuring operator safety are primary concerns.

This enhanced operational flexibility is a significant advantage for R&D in:

- **Pharmaceutical & Chemical Process Development:** For laboratories that conduct a wide variety of syntheses and workups, the lifting and tilting features dramatically simplify the recovery of solid products and the cleaning of the reactor between different campaigns, maximizing asset utilization.
- **Contract Research & Manufacturing (CRO/CDMO):** As a highly versatile workhorse for developing and optimizing diverse client processes, allowing for rapid and safe changeovers between different projects and chemistries with minimal manual handling.
- **Polymer & Specialty Materials Synthesis:** To facilitate the handling and recovery of high-viscosity polymers and materials that are difficult to discharge from a standard bottom-outlet valve, ensuring maximum product yield.
- **Academia & Teaching Laboratories:** As an advanced, user-friendly system for teaching reaction engineering principles, where the enhanced ergonomics and safety features provide a superior learning environment for students and researchers.

Jacketed Lifting Glass Reactor

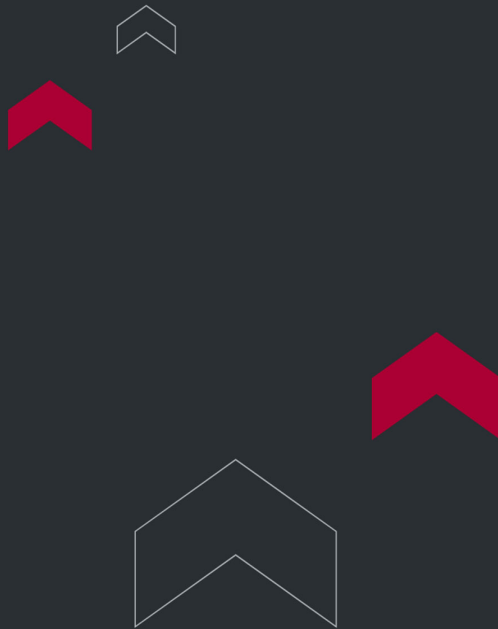
FEATURES

- **PTFE and Fluororubber Double Seal:** Provides a reliable vacuum system.
- **High-Quality Borosilicate Glass 3.3:** Offers exceptional strength, resistance to high temperatures, and excellent corrosion resistance.
- **Secure External Loop Buffer:** Ensures a safe and stable connection for enhanced system performance.

TECHNICAL SPECIFICATIONS

Model	GDRL-5L (ExGDRL-5L)	GDRL-10L (ExGDRL-10L)	GDRL-20L (ExGDRL-20L)	GDRL-50L (ExGDRL-50L)	GDRL-100L (ExGDRL-100L)
Glass vessel volume	5L	10L	20L	50L	100L
Jacket volume	800ml	5L	7L	16L	25L
Voltage	220V/50Hz (110V is also available)				
Overall Power	110W	130W	160W		240W
Stirring motor power	90W1/3	120W1/3 (Ex: 180W)			200W1/3 (Ex: 370W)
Lifting motor power	20W1/12.5	40W1/12.5			
Stirring speed	0~450rpm (Ex:0~1400rpm)				
Temperature range of glass vessel	-80~+250°C				

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Temperature measurement accuracy	+/-1°C				
Vacuum degree	0.098MPa				
Condenser size	Φ60*600H mm	Φ100*600H mm		Φ120*600H mm	
Dropping funnel	50ml	1L		2L	
Glass vessel lid diameter	Φ205mm	Φ265mm			Φ340mm
Lifting distance	360mm	500mm	560mm	740mm	920mm
Rotation of vessel body	Hand wheel turns left 150°				
Dimensions	500W*620D* (1470-2050)H mm	700W*850D* (1820-2250)H mm	750W*920D* (1920-2400)H mm	750W*950D* (2320-2950)H mm	900W*1100D* (2700-3250)H mm
Weight	100kg	120kg	130kg	148kg	157kg



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