



TORONTECH



DESK-TOP JACKETED GLASS REACTOR

Desk-top Jacketed Glass Reactor is designed for experiments like material synthesis, distillation, and concentration. It features a dual-layer construction, with an inner and outer layer. Temperature control is achieved by circulating liquid of a specific temperature through the jacket, ensuring optimal conditions for the experiment.

APPLICATIONS

The Torontech Desk-top Jacketed Glass Reactor is an essential tool for laboratory-scale chemical synthesis, process development, and optimization. Its dual-layer, jacketed design allows for precise and uniform temperature control of the reactor's contents, a critical parameter for controlling reaction rates, influencing product yield, and ensuring the safety and reproducibility of a wide range of chemical processes.

This versatile, temperature-controlled system is a cornerstone for R&D in:

- **Pharmaceutical & Chemical Synthesis:** For performing controlled, small-scale synthesis of new chemical entities and active pharmaceutical ingredients (APIs), allowing researchers to precisely manage reaction temperatures to maximize yield and purity.
- **Academia & Research Institutes:** As a fundamental piece of equipment for a wide range of chemical research, including crystallization, distillation, reflux, and for studying reaction kinetics under precisely controlled thermal conditions.
- **Polymer & Materials Science:** For the synthesis and process development of new polymers and advanced materials, where precise temperature control is crucial for managing polymerization reactions and achieving the desired material properties.
- **Quality Control & Process Optimization:** To simulate and troubleshoot production processes on a smaller, manageable scale, allowing for the optimization of reaction parameters like temperature, mixing, and reaction time to improve the efficiency of larger-scale manufacturing.

FEATURES

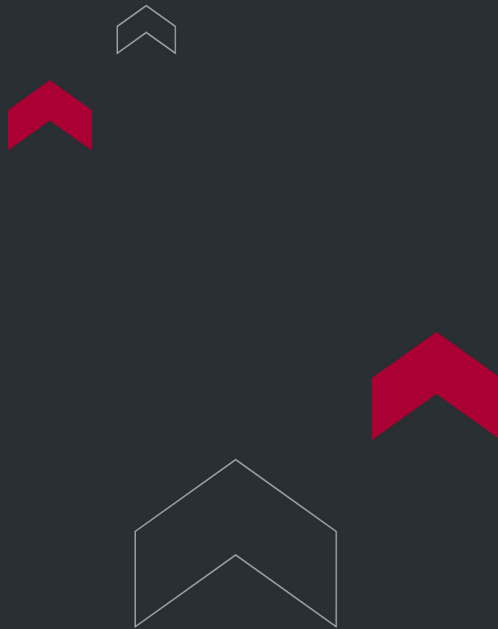
- PTFE and fluororubber double-seal design ensures a reliable vacuum system.
- Constructed with high-strength borosilicate glass 3.3, offering exceptional heat and corrosion resistance.
- Features a fixed external loop buffer for a secure and stable connection.

TECHNICAL SPECIFICATIONS

Model	GDR-1L (ExGDR-1L)	GDR-2L (ExGDR-2L)	GDR-3L (ExGDR-3L)	GDR-5L (ExGDR-5L)
Glass vessel volume	1L	2L	3L	5L
Jacket volume	200ml	250ml	600ml	800ml
Voltage	220V/50Hz (110V is also available)			
Stirring motor power	40W		90W	
Stirring speed	0~450rpm (Ex:0~1400rpm)			
Temperature range of glass vessel	-80~+250℃			
Temperature measurement accuracy	+/-1℃			
Vacuum degree	0.098MPa			
Condenser size	Φ40×350H mm		Φ60×450H mm	
Glass vessel lid diameter	Φ150mm		Φ205mm	
Dropping funnel	250ml		500ml	
Dimensions	330W×350D×1220H mm	330W×350D×1300H mm	330W×410D×1450H mm	330W×410D×1480H mm

Model	GDR-1L (ExGDR-1L)	GDR-2L (ExGDR-2L)	GDR-3L (ExGDR-3L)	GDR-5L (ExGDR-5L)
Weight	17.5kg (Ex: 22kg)	18.5kg (Ex: 23kg)	26kg (Ex: 30.5kg)	28kg (Ex: 32.5kg)

Note: The explosion-proof type is equipped with explosion-proof motor, explosion-proof frequency converter, and explosion-proof cable conduit. Other parameters are the same as the standard type.



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