

JACKETED GLASS REACTOR

JRBT

Benchtop Single Jacketed Glass Reactor, 1L to 5L

A compact benchtop single-jacketed reactor in GG-17 borosilicate glass, offered in 1L, 2L, and 5L sizes as standalone units or turnkey packages. The jacket connects to a circulating heater or chiller for operation from -80°C to 210°C, and the reactor is suitable for controlled vacuum-assisted processes.

- ✓ **Borosilicate glass vessel.** GG-17 borosilicate glass, 6.5mm ±0.5mm thick.
- ✓ **Wide temperature range.** -80°C to 210°C for cryogenic and high-temperature reactions.
- ✓ **Vacuum capable.** Lowest vacuum level of 25 Torr for vacuum-assisted processes.
- ✓ **Digital stirring control.** 50-1500 rpm with ±1 rpm accuracy and a digital display.
- ✓ **Turnkey option.** Packages add a UHC-720 heater chiller, UC-4/20 chiller, and USA-DVP-1.2 pump.

MODEL JRBT

1 to 5 L

VESSEL CAPACITY

-80 to 210 °C

GLASS TEMPERATURE RANGE

50 to 1500 rpm

STIRRER ROTARY RANGE

25 Torr

LOWEST VACUUM LEVEL

250 to 800 ml

FLUID JACKET CAPACITY

Technical Specifications

Model JRBT

VESSEL		CONSTRUCTION	
Capacity	1L / 0.26Gal to 5L / 1.32Gal	Condenser and feed valve barbs	10MM - 3/8"
Glass material	GG-17 Borosilicate Glass	Receiving flask barb	16MM - 5/8"
Glass thickness	6.5mm ±0.5mm	Connections	Standard glass joints and NPT connections
Temperature range	-80°C to 210°C / -112°F to 410°F	ELECTRICAL	
Lowest vacuum	0.0033 Mpa 25 Torr 25,000 Micron	Power requirements	110-120V 60Hz 15A
Lid ports	Left 24/29 joint; right S35 ball joint; 50mm flange stirring port; front and rear 19/26 joints	Stirrer wattage	120W
Bottom drain port	35MM - 1 3/8"	DIMENSIONS	
Receiving flask	1000ml	External (LxWxH)	18 × 18 × 41" to 13 × 15 × 58"
JACKET		Weight	72 to 114 lbs
Design	Single-jacketed		
Capacity	250ml to 800ml		
Jacket pressure	Maximum 11.6 psi, nominal 7.25 psi		
Fluid connection	16MM - 5/8" barb or 1/2" NPT		
STIRRING			
Rotary range	50-1500 rpm		
Speed accuracy	±1 rpm		
Max torque	60 N.cm		
Max viscosity	50000 mPas		
Display	Digital screen for speed, time, torque, temp		
Protection	Auto stop on overload and motor fault		

IDEAL APPLICATIONS

Chemical synthesis Distillation Crystallization Extraction Batch reactions R&D labs

Specifications by Size

Model JRBT

Specification	1 L JRBT-1L	1 L Turnkey JRBT-1L-TK	2 L JRBT-2L	2 L Turnkey JRBT-2L-TK	5 L JRBT-5L	5 L Turnkey JRBT-5L-TK
Option	Standalone	Turnkey	Standalone	Turnkey	Standalone	Turnkey
Vessel capacity	1L / 0.26Gal	1L / 0.26Gal	2L / 0.53 Gal	2L / 0.53 Gal	5L / 1.32Gal	5L / 1.32Gal
Fluid jacket capacity	250ml	250ml	250ml	250ml	800ml	800ml
External dimensions (LxWxH)	18 × 18 × 41"	18 × 18 × 41"	18 × 18 × 47"	18 × 18 × 47"	13 × 15 × 58"	13 × 15 × 58"
Weight	72 lbs	72 lbs	75 lbs	75 lbs	114 lbs	114 lbs
Measured size (LxWxH)	18.5 × 40 × 22 in	18.5 × 40 × 22 in	18.5 × 42 × 22 in	18.5 × 42 × 22 in	18.5 × 48 × 22 in	18.5 × 48 × 22 in
Measured weight	98 lb	98 lb	92 lb	92 lb	117 lb	117 lb
Turnkey includes		UHC-720 Heater Chiller, UC-4/20 Chiller, USA-DVP- 1.2 Diaphra		UHC-720 Heater Chiller, UC-4/20 Chiller, USA-DVP- 1.2 Diaphra		UHC-720 Heater Chiller, UC-4/20 Chiller, USA-DVP- 1.2 Diaphra

ORDERING INFORMATION

CATALOG NO.	DESCRIPTION	OPTION
JRBT-1L	1L Single Jacketed Glass Reactor 1L vessel, 250ml jacket	Standalone
JRBT-1L-TK	1L Single Jacketed Glass Reactor Includes UHC-720, UC-4/20, USA-DVP-1.2	Turnkey
JRBT-2L	2L Single Jacketed Glass Reactor 2L vessel, 250ml jacket	Standalone
JRBT-2L-TK	2L Single Jacketed Glass Reactor Includes UHC-720, UC-4/20, USA-DVP-1.2	Turnkey
JRBT-5L	5L Single Jacketed Glass Reactor 5L vessel, 800ml jacket	Standalone
JRBT-5L-TK	5L Single Jacketed Glass Reactor Includes UHC-720, UC-4/20, USA-DVP-1.2	Turnkey