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## Ai 20L Glass Reactor Crystallization and Isolation Package

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Ai is PittCon 2020 Silver Innovation Award Winner



The Beauty of Science Video Competition



\* Marked fields are required.

UL, CSA, CE certification *	ETL tested to UL/CSA standards (+\$2,000.00) <input type="button" value="▼"/>
Cold trap *	Select <input type="button" value="▼"/>
Vacuum regulator & gauge *	DigiVac Vapor Pressure Controller (+\$1,800.00) <input type="button" value="▼"/>
Choose reactor *	AI R20 20L single jacketed glass reactor <input type="button" value="▼"/>
Chiller for top condenser *	Select <input type="button" value="▼"/>
Delivery liftgate service *	Select <input type="button" value="▼"/>
Special Instruction	<input type="checkbox"/>
Qty*	<input type="text" value="1"/>
Price	\$10,000.00
Adjusted Price	\$23,790.00
This item ships freight.	



Click To Enlarge  
Item #: R20-CP1000F-DTC41

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Ai R-series single/dual jacketed glass reactors are designed for synthetic reaction of different types of materials in a controlled temperature and vacuum environment. Each reactor features adjustable stirring speeds and a constant pressure feeding funnel that allows you to add material to the vessel at a uniform and controlled speed. The built-in condenser makes it possible to recover some materials, also at a controlled rate of speed.

#### Features

- Now includes a FREE high quality thermo insulation jacket (a \$459 value) with open/close viewing window and top/bottom adjustable drawstrings, specially designed and made for Ai glass jacketed reactors. These jackets will extend chiller life, allow you to go down to a lower temperature, and also cut your utility bill.
- Dual jacketed model allows you to draw vacuum from the outer jacket, thus protects your recirculating fluid temperature and gives you best control over your work. It also help prevents frost to form on the outside of the vessel, allowing you to see clearly into your material.
- Solvent-resistant PTFE on all sealing components ensures long time durability and operation.
- All glassware is hand-made from food grade high borosilicate glass that is heat/cold/corrosion-resistant.
- Adjustable stirring rate provides great torque or high speed.
- Patented PTFE stirring rod bearing for reliable and quiet operation.
- Optional multi-layer stirring blades for optimal reaction results.
- Wide range of temperature operations, from -110°F to 400°F.
- Large condenser cooling surface for exceptional condensation performance.
- Rugged stainless steel reinforced PTFE stirrer with anchored agitator, suitable for a wide range of viscous materials.
- Easily visual operation with digital speed and temperature displays.
- Heavy duty stainless steel supporting framework with lockable casters for mobility and stability. (whole support and glass vessel shipped pre-assembled)
- One year warranty and lifetime US-based parts, service, and support.

Your safety is important to us! Please use caution when operating. Users of glass reaction equipment must take all necessary precautions to avoid contact with rotating parts, particularly entanglement of loose clothing, hair, necklaces, or other jewelry. Under these circumstances, the winding action of the rotating parts can draw the user(s) into the apparatus, resulting in breakage of glassware, burns, and/or chemical exposure. Extra caution must also be taken when operating with air-reactive materials, especially under vacuum. A leak can draw air into the apparatus and cause a violent reaction to occur.

#### Specifications

Model	R20
Electrical requirements	110V 60Hz or 220V 50/60Hz, 1-PH, 90W
Reaction glass vessel capacity	5.3 gallons (20L)
Cooling/heating jacket capacity	1.6 gallons (6L)
Glass material	High borosilicate glass 3.3
Rotation controller	Digital controller with variable frequency drive
Maximum jacket pressure	4.4 psi or 0.03 MPa
Drain valve	Flush seal design with large opening and flat flange clamp
Agitator	Anchor design, type-304 stainless steel reinforced PTFE structure
Condenser	Dual-cooling coil design
Funnel	Pressure equalizing
Vacuum gauge	Mechanical
Swivel caster	Four
Glass vessel temperature range	-110°F to 400°F
Vacuum level	< 700 torrs
Vacuum sealing	Glass or PTFE
Drain port ground clearance	13 inches
Reactor dimensions (WxDxH)	20 x 27 x 80"
Shipping dimensions	24 x 75 x 31"
Shipping weight	265 Lbs
Download	<a href="#">Ai jacketed reactor brochure</a>

USA



2019 MRS Spring Meeting & Exhibit, 04/22-26 2019, Phoenix, Arizona, USA



Materials Science & Technology Sep 29 - Oct 3, 2019, Oregon Convention Center, Portland, Oregon USA



Ceramics 2018 Expo, 5/1 - 5/3, 2018, Cleveland, OH



AVS 65th International Symposium & Exhibition 2018, 10/21-10/26, Long Beach, CA.



MRS SPRING 2018 - Fall, 11/25-11/30, BOSTON, MA



MRS 2017, 11/26-12/1, Boston MA



MRS 2017, 4/17-4/21, Phoenix AZ

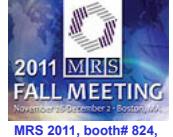


MRS 2016, 11/27-12/2, Boston, MA



MRS 2016, booth# 131, 3/28-4/1, Phoenix, AZ

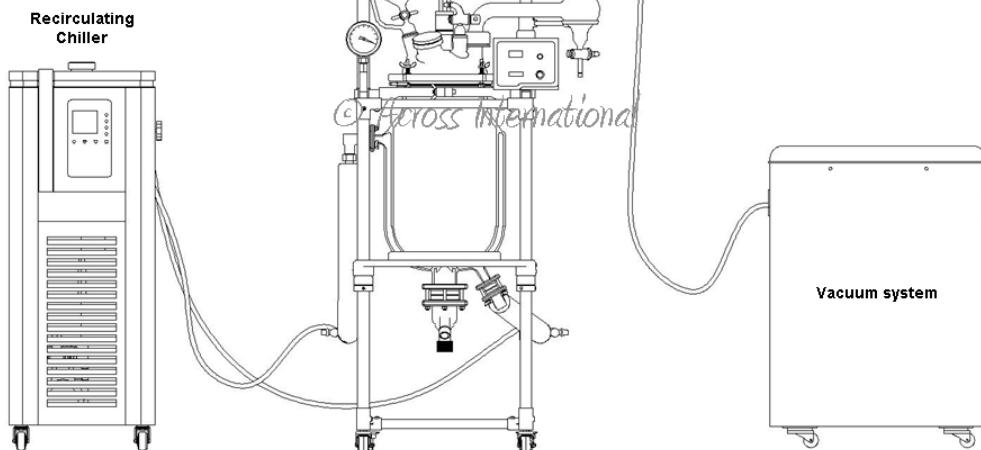
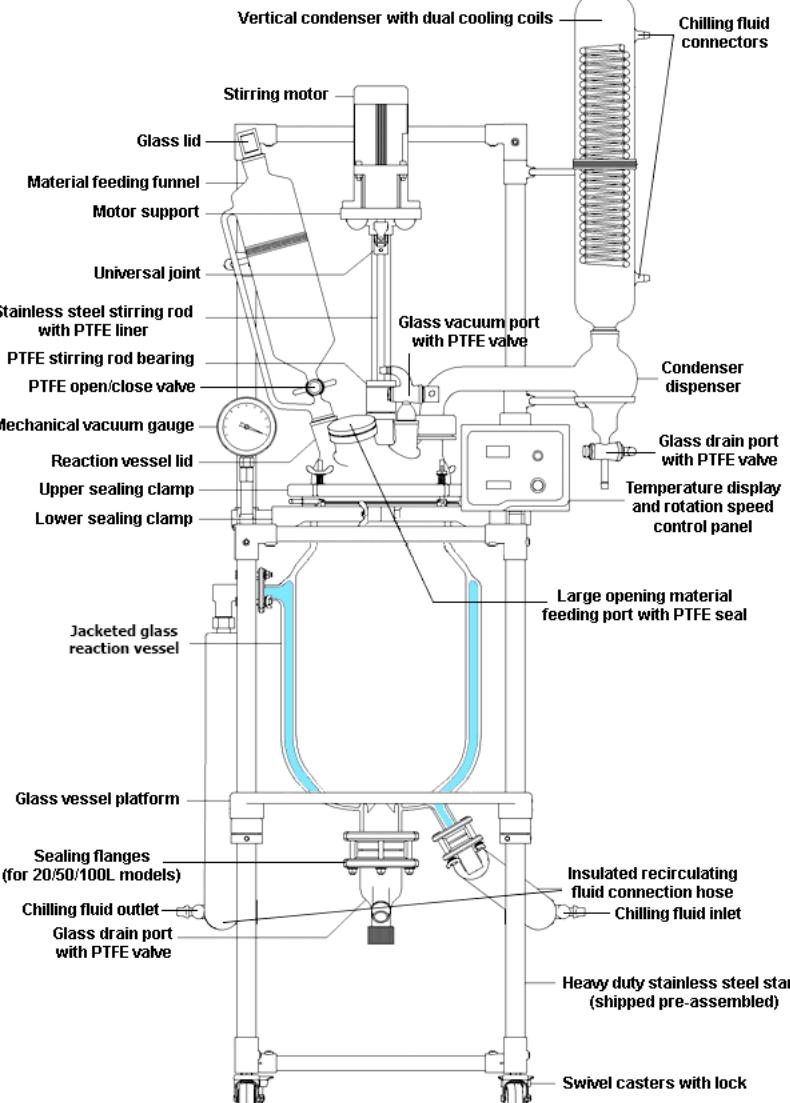




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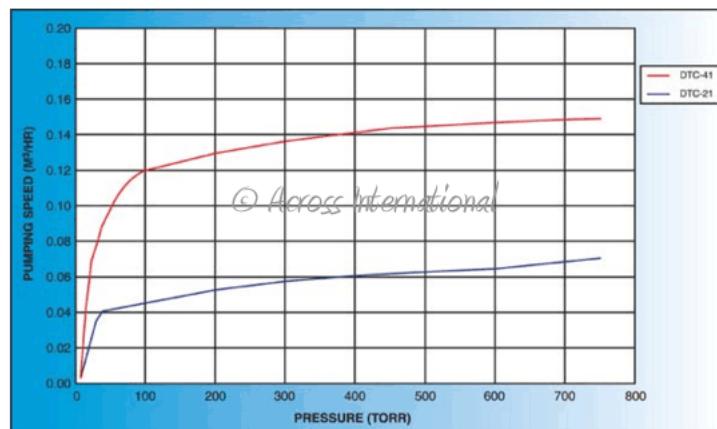


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ULVAC DTC-21/41 Performance Curves



## R20-CP1000F-DTC41 Standard Package

Part description	Quantity	Part image
Julabo CORIO CP-1000F -50C to 200C circulator - 110V	1 set	
ULVAC DTC-41 1.6 cfm 7.5 torr 2-head diaphragm pump and vacuum hose - 110V	1 set	
Jacketed glass vessel, lid, clamps and heavy duty stainless steel stand with casters (shipped pre-assembled)	1 set	
Glass vessel insulation jacket with openable viewing window	1 pc	
Vertical condenser with dual cooling coils, 2 chilling fluid ports and 1 vacuum port, glass	1 pc	
Glass condenser dispenser with drain port and PTFE open/close valve	1 set	
Glass material feeding funnel, lid, and PTFE open/close valve	1 set	
1" glass drain port with PTFE open/close valve	1 set	
Glass vacuum valve	1 set	
Stirring motor controller with material temperature display	1 pc	
Stirring motor and motor support	1 set	
Mechanical vacuum gauge with two 3/8" hose barb ports	1 pc	

		
Temperature probe with PTFE seal	1 pc	
PTFE stirring blades, stainless steel rod with PTFE liner	1 pc	
Insulated hose with drain port & open/close valve x 2 Stainless steel hose barb adapter x 2	4 pcs	
PTFE sealing tape	1 pc	
PTFE stirring rod positioner/bearing kit	1 set	
Condenser dispenser connection kit	1 set	
Large opening material feeding port kit	1 set	
Bottom drain port sealing clamp	1 set	
Rubber-wrapped condenser dispenser support and condenser bracket	3 pcs	
Chilling fluid connector x 2, vacuum connector x 1	3 sets	
Allen key and backup inner hex screws	1 set	
User's manual	1 pc	

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