



Stainless Steel Jacketed Reactor

Laboratory and Processing Equipment



LAB1ST / Laboratory and Processing Equipment

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STAINLESS STEEL JACKETED REACTOR

Lab1st JSR-L series jacketed stainless steel reactors are designed as a multi-purpose reaction platform with controlled temperature and pressure environment. Each stainless steel jacketed reactor consists of SUS30408 stainless steel reaction vessel, rotary lip seal, single layer paddle agitation, temperature probe and digital display, and other accessories like coiled condenser, bottom discharge valve and other accessories.

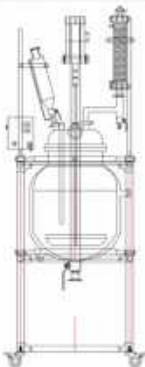
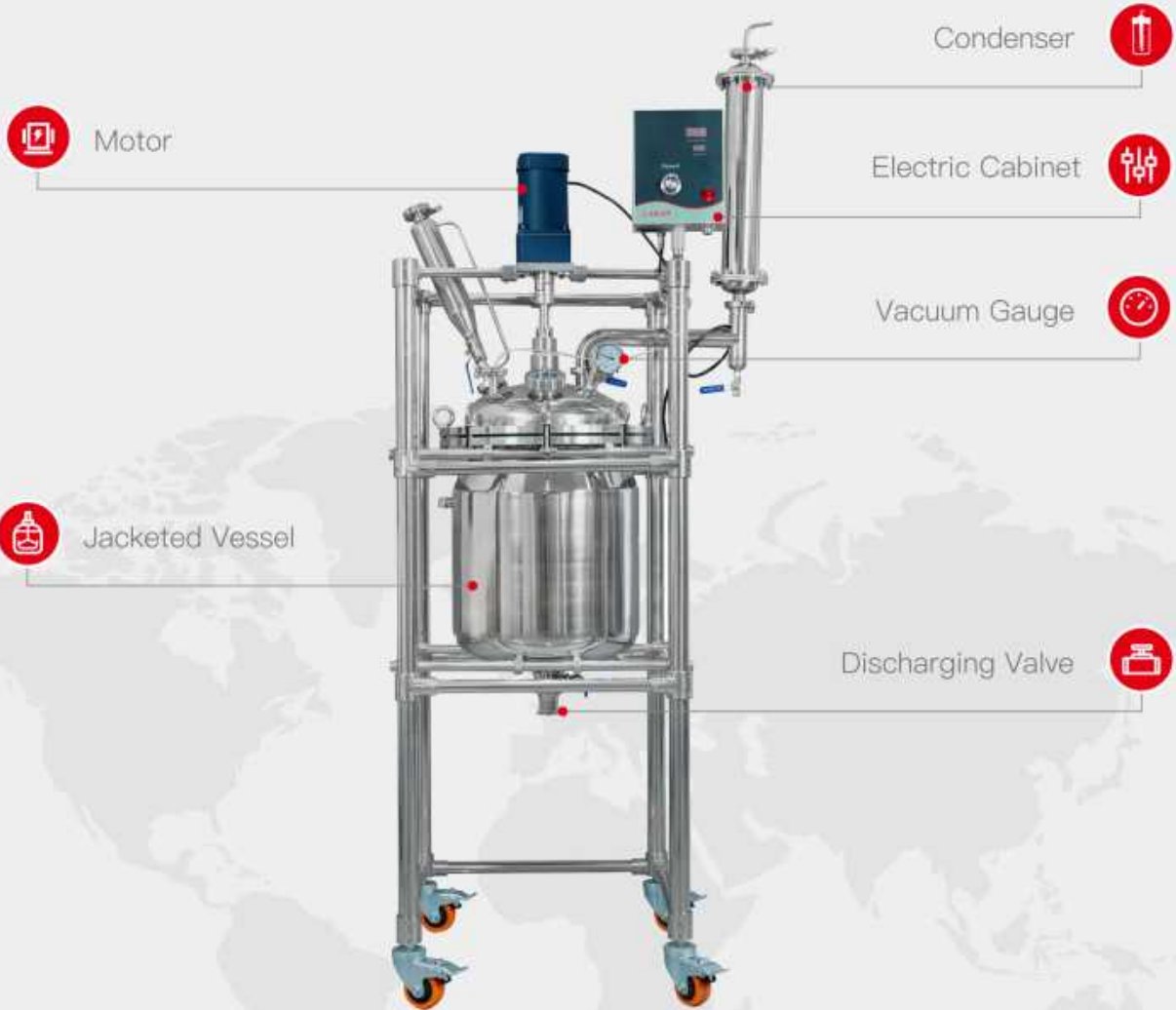
The standard JSR-L series stainless steel reactors come with vessels from 5L to 300L. It also can be fully customizable to fulfill various needs, like high torque high speed agitation, baffled reaction vessel, programmable controller, air driven motor, etc.

There are two different structure for JSR-L series reactor. For 5L to 50L reactors, they are completely vertical structure. But for vessels who are over 50L, they come with a larger collection tank to make the system perfect.

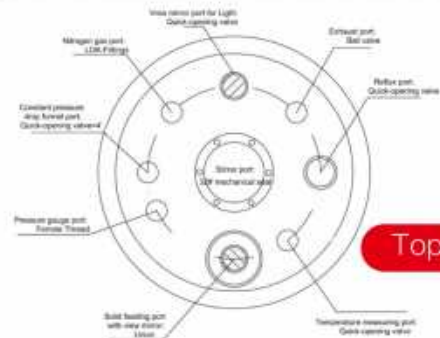


PRODUCT DISPLAY

5L - 20L



Main View



Top View

PRODUCT DISPLAY

Over 50L (50L included)



Motor



Vacuum Gauge



Jacketed Vessel



Discharging Valve

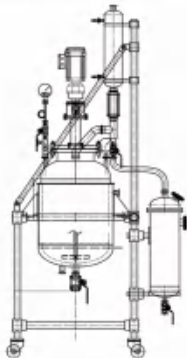
Condenser



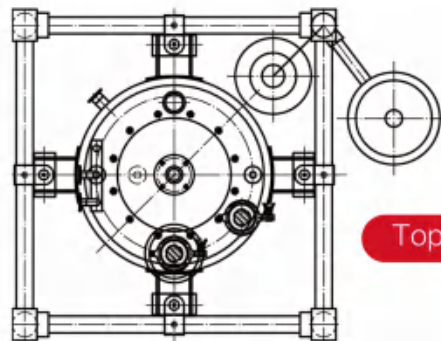
Electric Cabinet



Collection Vessel

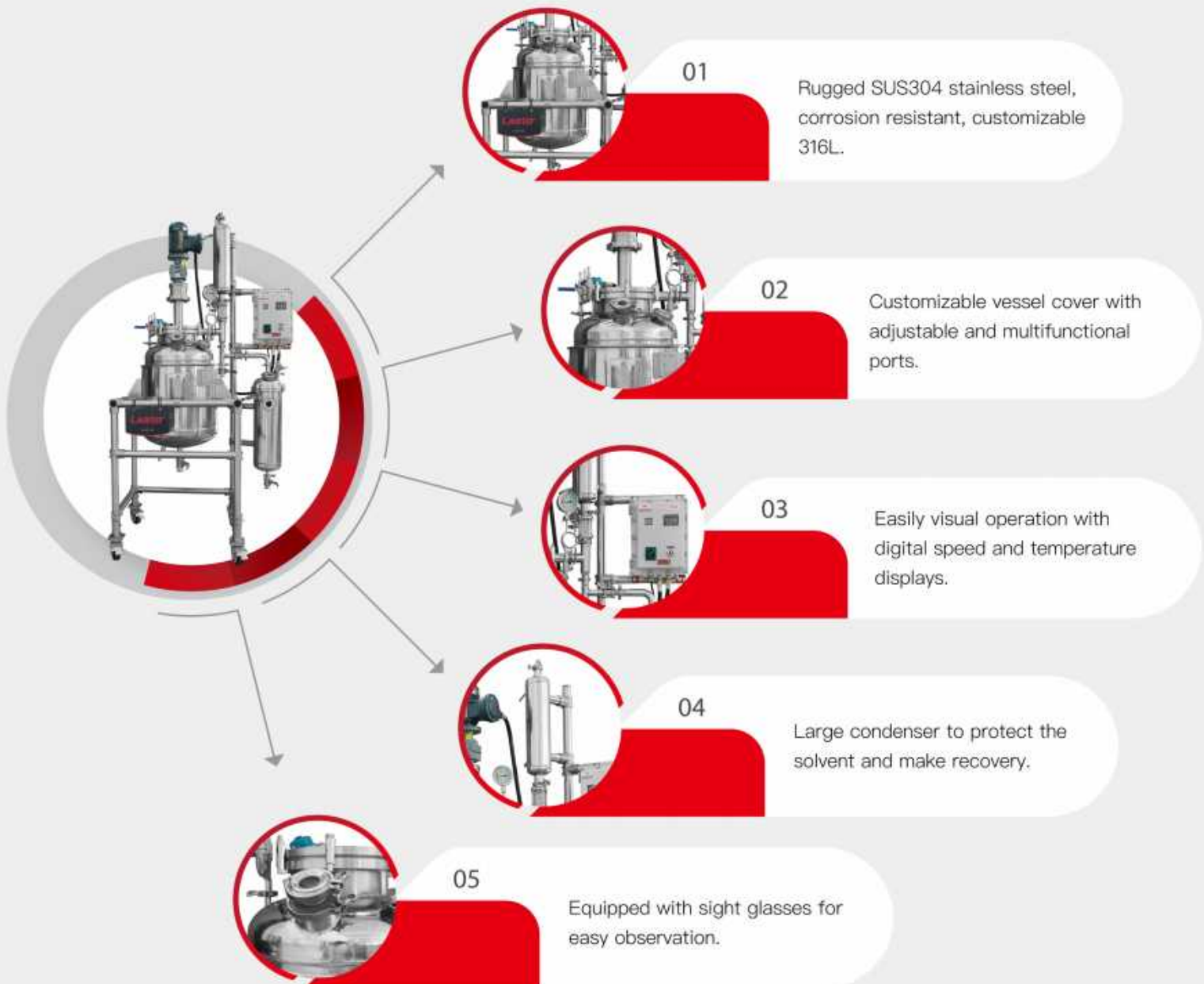


Front View

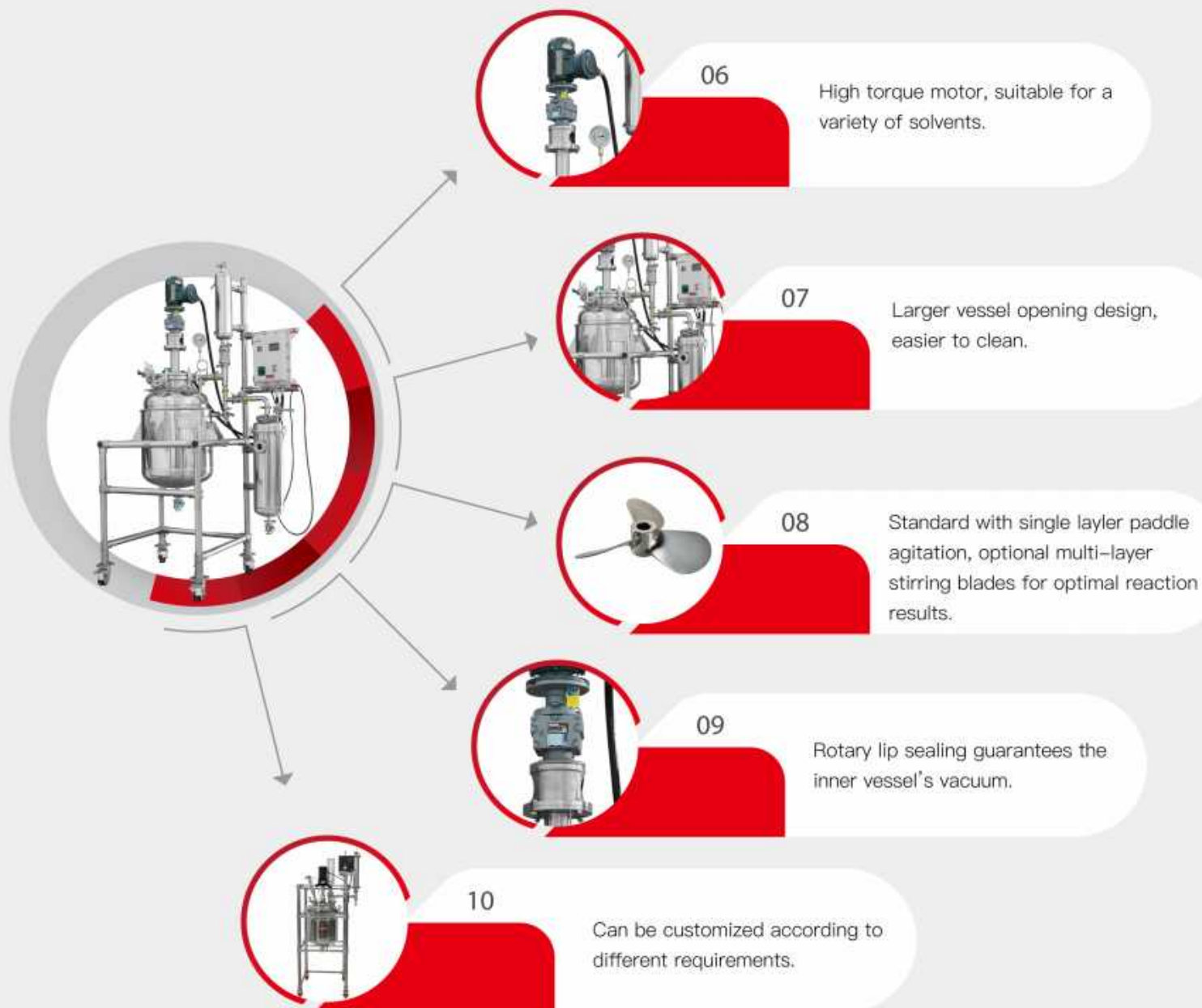


Top View

FEATURES



FEATURES



TECHNICAL DATA

Mode	JSR-200L	JSR-300L
Technical Data		
Temperature Range	RT-200°C	RT-200°C
Heating Method	Jacket Circulation Heating	Jacket Circulation Heating
Material	SUS30408	SUS30408
Vacuum Sealing	Rotary Lip Seal	Rotary Lip Seal
Agitation Type	Single Layer Paddle Agitation	Single Layer Paddle Agitation
Electrical Requirement		
Voltage [V]	220	220
Phase [P]	1	1
Frequency [Hz]	50/60	50/60
Total Power [W]	550	750
Electric Cabinet	Explosion-proof Electric Cabinet	Explosion-proof Electric Cabinet
Vessel		
Vessel Volume [L]	200	300
Inner Vessel Diameter [Mm]	600	700
Inner Vessel Height [Mm]	600	700
Vessel Pressure	Atm	Atm
Jacket Volume [L]	45	60
Outer Vessel Diameter [Mm]	650	750
Jacket Pressure [Mpa]	0.1-0.3	0.1-0.3
Drain Valve Port	DN32[ISO2852]	DN32[ISO2852]
Jacket Port	DN25[ISO2852]	DN25[ISO2852]
Condenser		
Heat Exchange Area [M^2]	0.3	0.5
Material	SUS304	SUS304
Condenser Liquid Inlet & Outlet Port	14mm Barb	14mm Barb
Collection Tank		
Tank Volume [L]	20	30
Tank Dimension [Mm]	Ø219×600	Ø273×600
Sight Glass	2	2
Weight Dimension		
Unit Dimension [Mm]	1100×1500×2800	1200×1600×2900
Unit Weight [Kg]	500	600

AUXILIARY EQUIPMENTS

Vacuum Pump

Water-jet Vacuum Pump

Chemical duty and easy to maintain vacuum pumps with up to 50L/min air-taking speed and 20 mbar end vacuum. Vacuum is generated by forced water circulation, making it the ideal vacuum pump for chemical applications.



PTFE Diaphragm Vacuum Pump

Light-weight and low noise. The PTFE diaphragm design makes them suitable for even the most corrosive solvents. Available in different capabilities (Up to 120L/min air-taking speed and 50 mbar end vacuum).



Rotary Vane Oil Pump

Strong and relatively low cost, with different choices based on your requirement. They are available in single-stage or dual-stage, from 2.5 CFM to 45 CFM. Some of them are suitable for 24x7 continuous operation. Note: a cold trap is needed for rotary vane oil pumps in chemical applications.



Heating & Cooling Circulator

HR-Series

These are integrated heating & cooling circulators for customers requiring a high dynamic temperature range. They come with a hermetic design and are available in different models. The starting temperature range is from $-25\text{ }^{\circ}\text{C}$ to $200\text{ }^{\circ}\text{C}$. On advanced models, the lowest temperature can be as low as $-80\text{ }^{\circ}\text{C}$, and the highest temperature can be up to $250\text{ }^{\circ}\text{C}$.



AUXILIARY EQUIPMENTS

Heating Circulator

OBC-Series

The most cost-effective heating circulator, with a concise but efficient design. Standard versions can heat up to 180C and advanced versions can reach 300C. These circulators comes with an open reservoir (from 10L to 100L), which can also be used as a heating bath. The heating power and voltage of the circulators are totally customizable.



UC-Series

Advanced heating circulator with a hermetic design, for minimized oxidation of heating oil at high temperature. These circulators are available with 200C or 300C max temperature. They come with air or water cooling, making them suitable for applications requiring a quick drop from high temperature to room temperature.



Cooling Circulator

DL-Series

The most cost-effective cooling circulator, which comes with an open reservoir (from 5L to 100L), making them suitable to be also used as a cooling bath. They come with a variety of models with reservoirs from 5L to 100L and with lowest temperature from -20C to -120C.



DLH-Series

High-end cooling circulators with a hermetic design, for extended life of both the circulator and the cooling fluid (preventing frost and ice flake in the circulator). They come with a variety of models with chilling power as low as 2.5kW and with lowest temperature from -15C to -120C.

