



## Rotary Evaporators

Rotary evaporators are commonly used for separating solvents, the Stuart® range offers simple control & a variety of glassware configurations, vertical, diagonal & cold finger condensing depending on your requirements. All configurations are available with plastic coated glass.



# Rotary Evaporators

- Digital control
- Can be orientated for left or right handedness
- Simple, counterbalanced lift mechanism
- PTFE/glass liquid pathway for chemical inertness
- Long life graphite impregnated PTFE vacuum seal
- Efficient flask and vapour tube ejection system

A Rotary evaporator is a distillation unit that incorporates an efficient condenser with a rotating sample flask. As the flask containing the solvent is rotated, it continually transfers a thin layer of liquid over the entire inner surface. This gives a very large surface area for evaporation, the sample or Florentine flask can additionally be heated by an accessory bath to accelerate the process. The entire system has been designed to be vacuum tight, an accessory vacuum pump can be connected to reduce the overall pressure and hence the boiling point of your sample.

Each unit is also provided with an easy to use vacuum release and a continuous feed system, which allows more solvent to be drawn into the rotating Florentine flask without the need to stop the operation.

There are three orientations of condenser available depending on the application and space available:

- The RE400 rotary evaporator comes with a diagonally orientated glass condenser for standard distillations.
- The RE401 rotary evaporator comes with a vertically orientated glass condenser for distillation of solvents with higher boiling points. 20% narrower than RE400 saving space.
- The RE402 rotary evaporator comes with a vertically orientated, cold finger glass condenser for use with ice or dry ice for volatile or low boiling solvents. Providing a cooling solution without the necessity for a constant supply of cooling water.



RE400 with RE400DB

Plastic coated versions of all configurations are also available, providing additional safety when using the glassware under vacuum. The plastic coating ensures, that operator injury is less likely, should any glass component fail while under vacuum. The added security of a plastic coating also gives the operator sufficient time to transfer any potentially dangerous chemicals to a suitable vessel without spillage.

# Rotary Evaporators

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## Glass set 00

Diagonal coil condenser, Vapour tube for diagonal condenser, Receiving flask 1000ml, Florentine flask 1000ml, Feed tube with stopcock, Vacuum seal, Conical joint clip, Spherical joint clip

## Glass set 01

Vertical coil condenser, Vertical coil adaptor, vapour tube for vertical condenser, Receiving flask 1000ml, Florentine flask 1000ml, Feed tube with stopcock, Vacuum seal, Conical joint clip, Spherical joint clip, Cooler holder, Support bar clamp, Cooler support bar

## Glass set 02

Dewar condenser, Vertical coil adaptor, Vapour tube for vertical condenser, Receiving flask 1000ml, Florentine flask 1000ml, Feed tube with stopcock, Vacuum seal, Conical joint clip, Spherical joint clip, Cooler holder, Support bar clamp, Cooler support bar

## Glass set 00P

Diagonal coil condenser plastic coated, Vapour tube for diagonal condenser, Receiving flask 1000ml plastic coated, Florentine flask 1000ml plastic coated, Feed tube with stopcock, Vacuum seal, Conical joint clip, Spherical joint clip

## Glass set 01P

Vertical coil condenser plastic coated, Vertical coil adaptor plastic coated, vapour tube for vertical condenser, Receiving flask 1000ml plastic coated, Florentine flask 1000ml plastic coated, Feed tube with stopcock, Vacuum seal, Conical joint clip, Spherical joint clip, Cooler holder, Support bar clamp, Cooler support bar

## Glass set 02P

Dewar condenser plastic coated, Vertical coil adaptor plastic coated, Vapour tube for vertical condenser, Receiving flask 1000ml plastic coated, Florentine flask 1000ml plastic coated, Feed tube with stopcock, Vacuum seal, Conical joint clip, Spherical joint clip, Cooler holder, Support bar clamp, Cooler support bar

## Technical Specification

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Speed range	10 to 310rpm
Vacuum	3 mm Hg
Lift distance	180mm
Dimensions (w x d x h)	385 x 335 x 470-610mm
Electrical supply	100-240V, 50/60Hz

## Ordering Information

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Model	Description
RE400	Rotary evaporator complete with glass set 00
RE401	Rotary evaporator complete with glass set 01
RE402	Rotary evaporator complete with glass set 02
RE400P	Rotary evaporator complete with glass set 00P
RE401P	Rotary evaporator complete with glass set 01P
RE402P	Rotary evaporator complete with glass set 02P

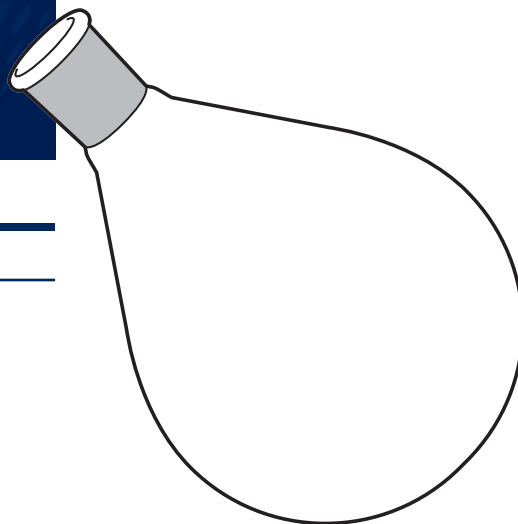
# Glassware Accessories and Spares

## Evaporating (Florentine) flasks

- Florentine type flasks for use with all glassware sets. 29/32 socket.

### Ordering Information

Model	Description
FD50/4RE	Evaporating flask 50ml
FD100/4RE	Evaporating flask 100ml
FD250/4RE	Evaporating flask 250ml
FD500/4RE	Evaporating flask 500ml
FD500/4REP	Evaporating flask 500ml plastic coated
FD1L/4RE	Evaporating flask 1000ml
FD1L/4REP	Evaporating flask 1000ml plastic coated
FD2L/4RE	Evaporating flask 2000ml
FD2L/4REP	Evaporating flask 2000ml plastic coated



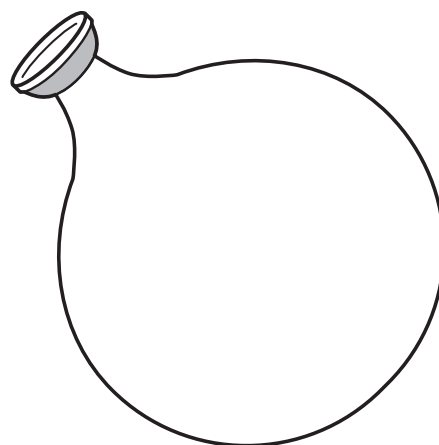
Florentine Flask

## Receiving flasks

- Receiving flasks for use with all glassware sets. S35 spherical socket

### Ordering Information

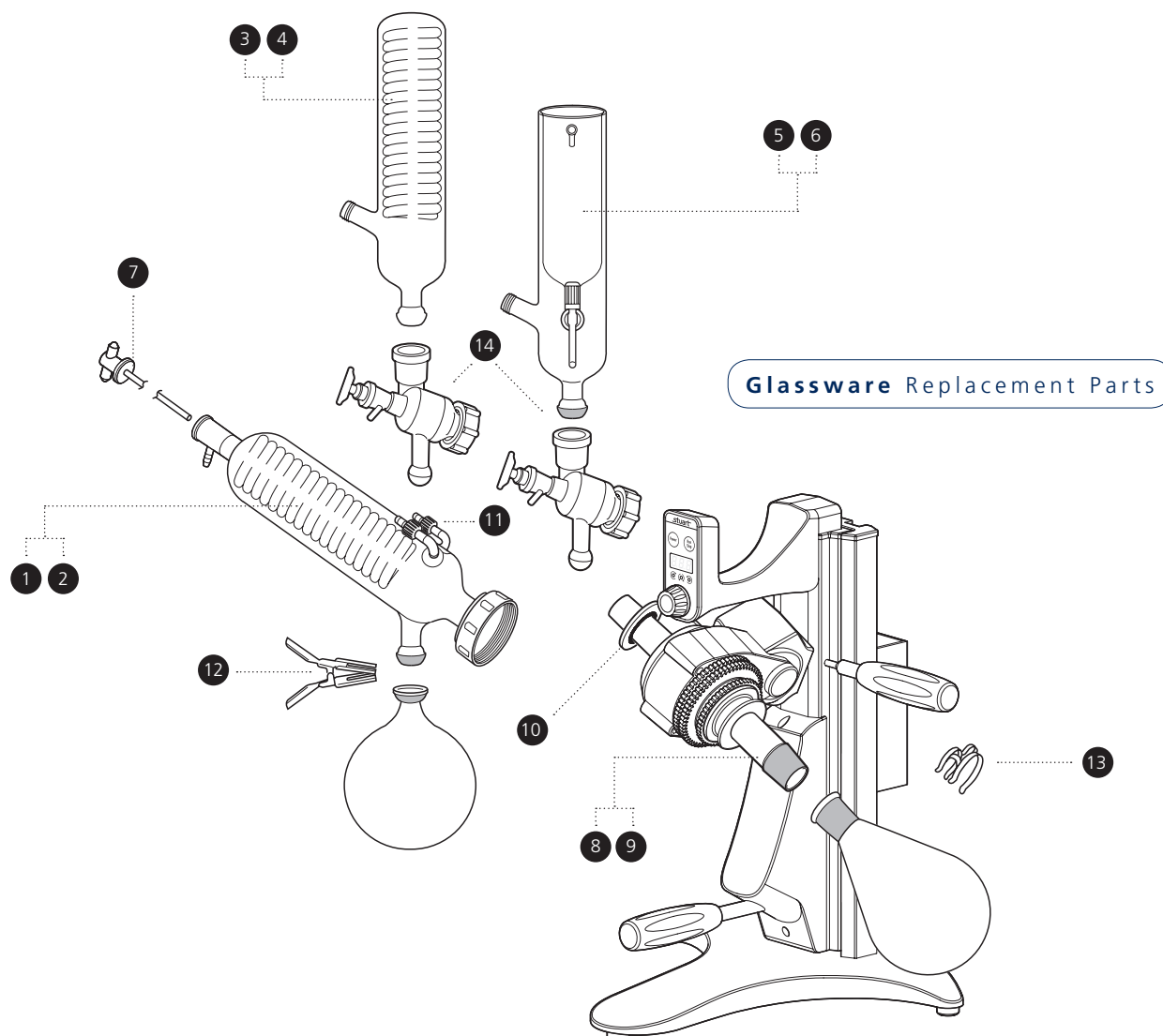
Model	Description
RE100/RF/50	Receiving flask 50ml
RE100/RF/100	Receiving flask 100ml
RE100/RF/250	Receiving flask 250ml
RE100/RF/500	Receiving flask 500ml
RE100/RF/500P	Receiving flask 500ml plastic coated
RE100/RF/1L	Receiving flask 1000ml
RE100/RF/1LP	Receiving flask 1000ml plastic coated



Receiving Flask

# Glassware Accessories and Spares

Replacement parts for glassware sets



## Ordering Information

Model	Description
1. RE400/CO	Diagonal condenser, glass set 00
2. RE400/COP	Diagonal condenser, plastic coated, glass set 00P
3. RE400/VC	Vertical condenser, glass set 01
4. RE400/VCP	Vertical condenser, plastic coated, glass set 01P
5. RE400/CF	Cold finger condenser, glass set 02
6. RE400/CFP	Cold finger condenser, plastic coated, glass set 02P
7. RE400/VR	Feed tube/ vacuum release, all glass sets
8. RE100/VT	Vapour tube diagonal condensers, glass sets 00 & 00P
9. RE400/VT/CF	Vapour tube for vertical coil condensers, glass sets 01, 01P, 02, 02P
10. RE100/VS	Vacuum seal, all glass sets
11. RE400/CONNECT	PTFE screwthread connectors, all glass sets, pack of 2
12. JC35/1	Spherical joint clip for receiving flask, all glass sets
13. KCM29	Plastic joint clip for evaporating flask, all glass sets
14. RE400/ADPT	Adaptor for VC/CF condenser

# Accessory Vacuum Pumps

Fixed pressure pump, RE3011C

Variable vacuum pump, RE3022C

- Quiet operation, no vibration
- Maintenance free drive system
- Designed for permanent operation
- Light weight, rugged design

The RE3011C is a powerful, compact vacuum pump. It features a rugged design combined with simple on/off operation, making it the perfect choice for delivery of a quick, reliable vacuum.

Both pumps offer a dry, oil free, vacuum from a reliable maintenance free diaphragm pump. Either pump is therefore ideal for use with the Stuart rotary evaporator or for any applications requiring vacuum.

The RE3022C vacuum pump also offers a vacuum regulator and chemical resistance, along with pressure gauge and integrated catch pots.



RE3022C Vacuum Pump

## Technical Specification

Model	RE3011C	RE3022C
Vacuum	8mbar	12mbar
Flow rate	18l/min	18l/min
Adjustable Vacuum	No	Yes
Net weight	6.5kg	9.5kg
Dimensions (w x d x h)	195 x 225 x 147mm	280 x 400 x 200mm
Electrical supply	230V, 50-60Hz	230V, 50Hz

## Ordering Information

Model	Description
RE3011C	Vacuum pump, fixed pressure
RE3022C	Vacuum pump, variable vacuum



RE3011C Vacuum Pump

# Accessory Baths

Digital water bath, RE400DB

Digital oil bath, RE400OB

- Digital temperature display
- Corrosion resistant bowl
- Easy to clean
- Integrated carry handle (RE400DB)
- Cool touch outer case

These precise digital baths have been specifically designed to be used with the Stuart rotary evaporators to give maximum efficiency for the smallest footprint. The clear LED digital display shows the actual bath temperature or the set temperature. The RE400DB is suitable for lower temperature applications whereby the RE400OB can be used with oil for higher temperature evaporations. Both models feature outer case's which are made from chemically resistant polypropylene.

(Please note plastic coated glassware is limited to 80°C and therefore unsuitable for use with the RE400OB oil bath) Corrosion resistant stainless steel bowl.

## Technical Specification

Model	RE400DB	RE400OB
Description	Digital Water bath	Digital Oil bath
Temperature range	RT to 90°C	RT to 180°C
Display resolution	1°C	1°C
Temperature control	±1°C	±1.5°C (water) ±3°C (oil)
Integrated carry handle	Yes	No
Capacity	4.3 litres	5 litres
Heater power	1400W	1400W
Internal dimensions Ø x h (mm)	220 x 120	240 x 120
Dimensions (mm)	285 x 295 x 244	282 x 282 x 244
Electrical supply	230V, 50Hz	230V, 50-60Hz

## Ordering Information

Model	Description
RE400DB	Digital water bath
RE400OB	Digital oil bath



**RE400DB** Digital Water Bath



**RE400OB** Digital Oil Bath

# Accessory Recirculating Coolers

## SRC4 Recirculating Cooler

- Digitally set temperature
- Easy to read LED display
- Quiet operation
- Powerful 450W cooling capacity
- Safety cut out feature

The recirculating cooler offers powerful cooling for an external device. By accurately controlling the temperature of your cooling medium down to -20°C, efficiency of operations such as condensing can be greatly improved. A recirculating cooler is not only much more powerful than conventional water cooling, but is also an ideal alternative when water consumption is an issue for economical, environmental or practical reasons.

The SRC4 provides a powerful cooler with a compact footprint suitable for mounting on or under a bench. The LED digital display clearly shows the current temperature of the cooling medium to  $\pm 2^{\circ}\text{C}$ , while the set temperature is revealed by a one button press.

The unit has a dedicated drain for easy emptying and cleaning. It also incorporates a built in safety alarm to indicate an overload relay for the refrigeration unit. A dust filter is incorporated and can be accessed without tools via the removable front panel.

## SRC14 Recirculating Cooler

With all the features of the SRC4 the SRC14 is ideal where larger volumes are required, or when extra cooling capacity is needed, electron microscopes for example. The unit is floor standing with lockable easy roll castors to ensure excellent mobility.

## Technical Specification

Model	SRC4	SRC14
Cooling capacity	450W at 10°C	1050W at 10°C
Temperature range	-20 to +30°C	-20 to +30°C
Control accuracy	$\pm 2^{\circ}\text{C}$	$\pm 2^{\circ}\text{C}$
Bath capacity	3 litres	16.5 litres
Pump rate	9 litres / minute	16 litres / minute
Dimensions (w x d x h)	232 x 497 x 490mm	354 x 384 x 851mm
Net weight	25kg	43kg
Electrical supply	230V, 50Hz	230V, 50Hz

## Ordering Information

Model	Description
SRC4	Recirculating cooler, 3 litre capacity
SRC14	Recirculating cooler, 16.5 litre capacity



SRC4 Recirculating Cooler



SRC14 Recirculating Cooler