



globe

reactions
made easy



www.syrris.com

Process perfection

Benefits

- **More reactions in less time:** The Globe oil drain unit and quick clamp allow “single hand” vessel changes in seconds
- **Space saving:** 50ml, 100ml, 250ml, 500ml, 1L, 2L, 3L or 5L vessels, all use the same clamp, lid, circulator and adjustable height Globe platform
- **Easy to use:** No tools, no fuss
- **Maximum chemical resistance:** All wetted parts are glass or PTFE (stainless steel and Hastelloy options available)
- **Wide temperature range:** -90°C to +250°C
- **Wide pressure range:** Vacuum (50 mbar) to 0.25 bar (or 3 bar with pressure system)
- **Leak free vessels:** The spring loaded bottom outlet valve eliminates leaks even at extremes of temperature and pressure
- **Upgrade to automation:** Add the Globe Reactor Master or PC software for total automation of reaction parameters
- **Robust and reliable:** Built on Syrris’ extensive experience, the Globe reactor system is built to last

globe

Globe is an innovative jacketed reactor platform from Syrris.

It has been designed by chemists to offer the ultimate ease of use and reaction flexibility. The advanced technology allows vessels from 50ml to 5L to be compatible with just one clamp and one lid. Globe enables vessel changes in seconds, automatic stirrer alignment, the widest range of pressures and temperatures available and upgrades to full automation.

Quick Range PC jacketed glass time seconds connected
Syrris change PC jacketed glass time seconds connected
independently bar safety outlet pressure
gas image high Master system litre vacuum Module vessel lid 5L or clamp
allows software valve seal stirrer vessels Wide reactor
height control oil guide drain Chemical automation
offer Reactor one
50ml



Globe saves time, money and space

Globe's range of proprietary technologies enable the fastest, easiest and safest vessel change imaginable. The design saves space and money by enabling vessels from 50ml to 5L to be used with same clamp, lid, circulator and stand.

Rapid oil drain: With the push of a button, the oil drain unit quickly and safely drains oil from the jacketed reactor back into the circulator.

Quick oil pipe connection and oil pipe tidy: These allow quick and reliable connection of the oil pipes to the jacketed vessel without the need for tools.

Quick vessel clamp and release: The Globe clamp can hold the unclamped lid or vessel independently. A squeeze of the lever seals the two together or releases. The vessel is removed with a simple twist.

Easy to raise/lower motor and auto aligning stirrer: Pulling the Globe handle raises the stirrer motor away from the stirrer seal and guide. A button on the stirrer seal and guide allows instant stirrer height adjustment.

Rapid oil drain



Quick oil pipe connection and oil pipe tidy



Quick vessel clamp and release



Easy to raise/lower stirrer motor and auto aligning stirrer



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Globe Features

Oil drain unit

Press button to drain thermo fluid for leak free vessel changes

Oil pipe tidy

Avoids drips and safely seals the pipes while changing vessels

Adjustable height clamp

Lower position for up to 2L, higher position for up to 5L

Quick connections

Thermo fluid connections made in seconds

Wide range of stirrers

Different styles and lengths available

Bottom outlet valve

Spring loaded valve offers leak free sealing even at extremes of temperature and pressure

Base

Sturdy yet compact base



Easy lift stirrer

Pull the lever to raise the stirrer

Easy stirrer seal

Chemically resistant, auto aligning stirrer seal and guide

7 Port Lid

A wide range of port sizes in both vertical and compound angle configurations

Quick clamp

No tools required to change jacketed vessels in seconds

Temperature control

Temperature probes connected to the circulator offer accurate closed loop temperature control

Jacketed vessels

50ml, 100ml, 250ml, 500ml, 1 litre, 2 litre, 3 litre, 5 litre in jacketed or vacuum jacketed format

Drip tray

5L drip tray with pouring spout



Optional automation without PC

Add the Globe Reactor Master to automate, display and log temperature, stirring speed, additions, pH etc.



High Pressure

3 bar pressure systems are available for Globe including automated gas selection and pressure control



Optional PC software

Add the Globe Reactor Master PC software for sophisticated automation

Jacketed Vessels

Globe offers an extremely wide range of vessel sizes and profiles with or without vacuum jackets. Globe uses exactly the same “premium quality” vessels as the Syrris Atlas jacketed reactors allowing total inter-changeability between Globe and Atlas systems.

Wide range of vessels:

Vessels of 50ml, 100ml, 250ml, 500ml, 1L, 2L, 3L or 5L all use the same clamp, lid and adjustable height stand.



Wide temperature range

-90°C to +200°C (+250°C with high temp upgrade kit).



High performance bottom outlet valve

The sprung bottom outlet valve has maximum chemical resistance and eliminates leaks even at extremes of temperature and pressure.



Range of profiles and materials

Torispherical, dished, rounded or coned in glass, stainless steel or Hastelloy.



Single or vacuum jacketed

Opt for vacuum jacket for extremes of temperature or ultimate temperature control and safety.



Stirring

Globe offers a wide range of stirring options due to the innovative stirrer seal and guide which allows quick and independent connection to the stirrer motor or stirrer shaft.

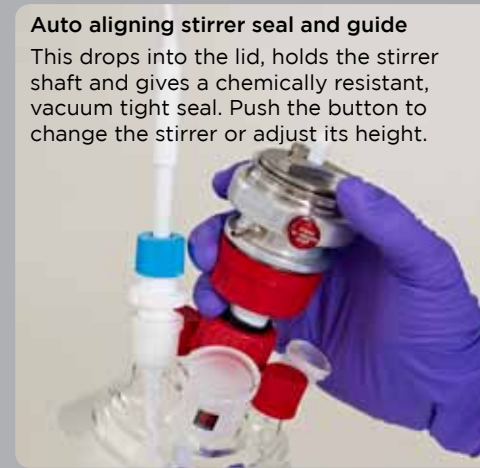
Range of stirrer motors

The range of stirrers suits all budgets and requirements and includes options for high speeds (up to 2000rpm), high torque (up to 90Ncm), torque feedback, RS232 control and digital display.



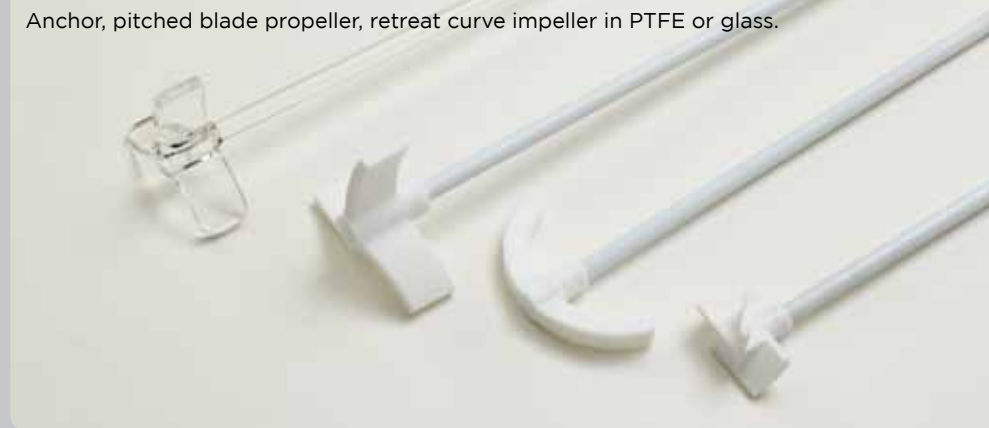
Auto aligning stirrer seal and guide

This drops into the lid, holds the stirrer shaft and gives a chemically resistant, vacuum tight seal, push the button to change the stirrer or adjust its height.



Range of stirrer profiles and materials

Anchor, pitched blade propeller, retreat curve impeller in PTFE or glass.



Easy lift stirrer motor

Pulling down on the red globe raises the stirrer motor away from the stirrer seal and guide.



Temperature Control

Globe is designed for accurate temperature control over a very wide range of temperatures. The default temperature range is -40°C to +200°C and this can be extended to -90°C or +250°C with the low temperature or high temperature upgrade kits.

Accurate process temperature control

In-reactor temperature probes connected to the circulator enable accurate process temperatures.



High efficiency vessels

The design of Globe vessels allows excellent heat transfer and temperature control.



Wide range of high performance circulators

The Globe range is compatible with virtually any circulator. Syrris offer the full Huber and Julabo series.



Pressure Reactors

The regular Globe system is suited to atmospheric pressure or vacuum processes (to 50mbar). For pressure reactions, Syrris offer the Globe 3 bar system. This includes a high pressure lid, vessel, clamp and safety manifold. For gas control, choose the Gas Selection Module or Pressure Control Module.

Globe 3 bar system

Ideal for high pressure reactions such as hydrogenations and carbonylations or when using dissolved gasses such as ammonia or HCl.



Lid and safety manifold

The 3 bar jacketed vessel lid has 7 ports. The safety manifold includes a pressure relief valve and burst disc.



Pressure Control Module

This module automatically controls the dosing of gas into and out of the reactor to control the pressure within the reactor.

Gas Selection Module

The Gas Selection Module allows 3 gases to be permanently connected to the module yet only one gas connected to the reactor at any one time.



3 bar clamp

The clamp for the 3 Bar Globe system is designed to accept any of the Syrris jacketed reactors and the jacketed vessel lid that are rated to 3 bar (and 200°C).



Automated liquid dosing and reaction control

The Globe jacketed reactor system can be upgraded to perform automated experiments, even without a PC. Choose the Globe Reactor Master for full automation and data logging or the Syringe Pump for automated reagent dosing.

Add the Syringe Pump

The Atlas Syringe Pump is a versatile volumetric dosing and/or sampling system. It allows 2 independent refilling flows, one continuous flow, reaction sampling, intelligent control of pH and temperature dependant dosing. It consists of two syringes and multi port valves and be controlled from the front panel, by a Globe Reactor Master, or the Globe Reactor Master PC software.



Add the Globe Reactor Master

The Reactor Master automates Globe's temperature, stirring speed, quantity and timing of liquid additions. It can perform experiments of up to 99 steps whilst logging all data. All of this is controlled by the twist and click knob. Data can be viewed in real time and downloaded to a USB memory stick as a .csv file.

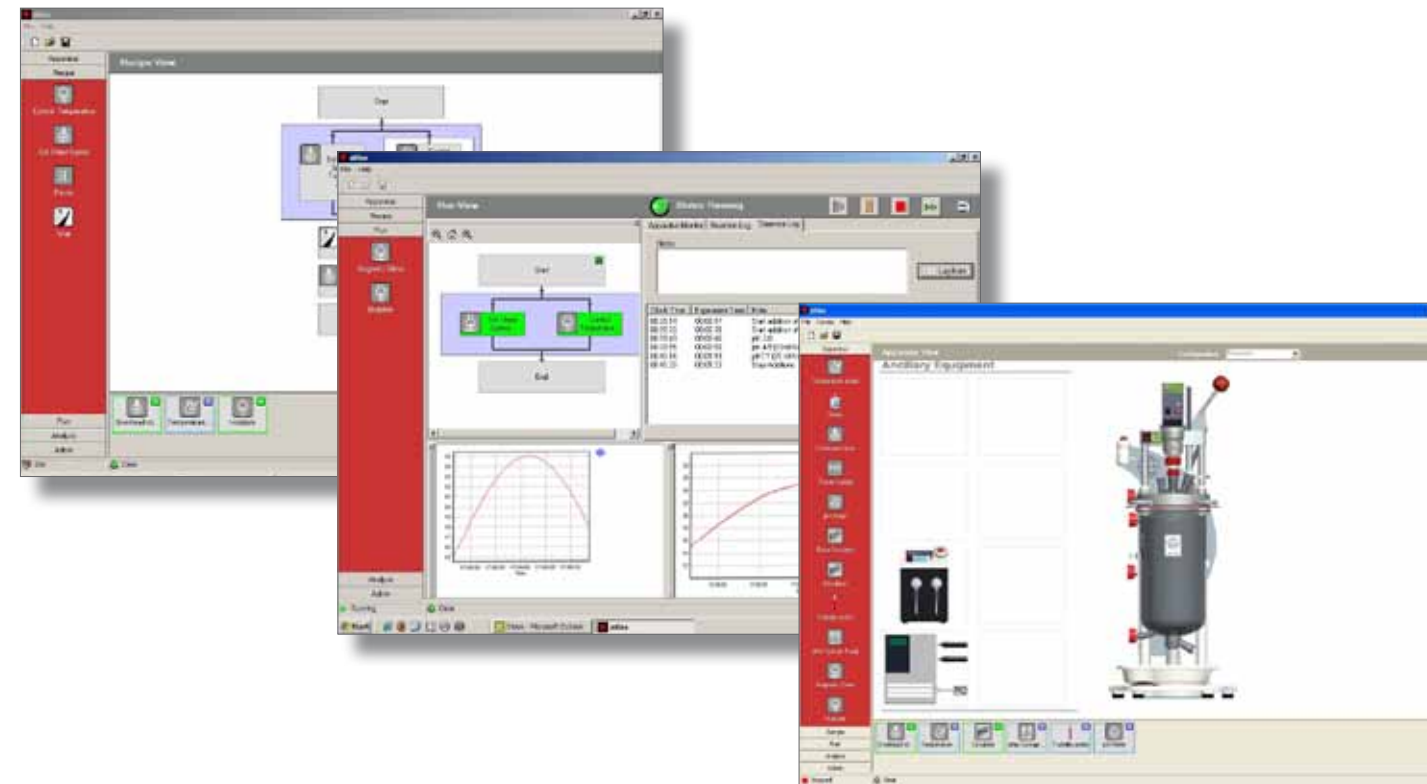


Globe PC Software

The Globe Master PC Software converts Globe into a totally controlled laboratory reactor.

Add the Globe Reactor Master PC software

Reactor Master Software is an easy to use PC based application for control and analysis of Globe experiments. Whole systems including stirrers, circulators, RTDs, pumps, balances etc. can be configured using virtually any manufacturer's apparatus. The "drag and drop" interface means recipes can be created, changed and saved with a click of a mouse.



Globe is designed and manufactured by Syrris, the world's most advanced provider of laboratory scale chemistry systems.

Syrris' network of offices in the UK, USA, Japan, India and Brazil plus over 35 distributors worldwide offer local service and support.

**Contact us now at:
www.syrris.com**



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