#### GreenHouse Work-Up provides rapid sequential and parallel purification in a 24 well MTP footprint using standard filtration, phase separation and SPE columns.

Designed to make your parallel chemistry work-up and purification quick and easy. See page 18.



Designed for

the synthesis of

small compound libraries and drug discovery

Control

chemistry

and log your

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## GreenHouse Plus Parallel Synthesiser™

The GreenHouse Plus provides 24 heated and stirred glass reactions with volumes from 0.5 ml to 7 ml. The combined reflux and additions head allows for convenient additions or withdrawals whilst maintaining an inert atmosphere



GreenHouse Plus brings all the benefits in productivity of parallel synthesis at a fraction of the cost of automated systems. Holding 24 glass reaction tubes in a removable reaction block with the same footprint as a standard microtitre plate (MTP), the GreenHouse Plus facilitates rapid transfer of samples by multi-channel pipettor or robotic systems.

Water-cooled aluminium reflux head with nickel condensing

fingers provides efficient

refluxing within individual glass reaction tubes.

### Features

Heated directly by the

stirring hotplate with optional

digital control and Pt1000 temperature sensor.

No electrical or

moving parts ensures

maintenance-free

operation. Easy to operate and set up.

A choice of septum

mats are available.

Round aluminium base transmits heat evenly to all positions. Compact size has small bench-top

footprint and is easy to store.

Cylindrical glass gas enclosure provides visibility of all 24 reaction tubes with no need to lean into the fume hood

- Powerful stirring and rapid heating to 150 °C.
- · Removable water-cooled reflux head.
- Perform reactions under an inert atmosphere.
- · Easy viewing of tube contents during experiments.
- Nickel-plated aluminium offers excellent chemical resistance.



Optional HDPE cooling reservoir for chilled reactions to -78°C using dry ice and acetone

Can be converted into GreenHouse Blowdown Evaporator

Combined reflux and additions head allowing for convenient additions or withdrawals whilst refluxing.

Provides 24 heated and stirred glass reaction positions with a reaction volume of 0.5 to 7 ml.

'V-Mag' technology uses a vertically positioned stirring bar to maximise the uniformity of the stirring within each reaction tube.

> Fits on a standard Carousel Stirring Hotplate



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Combined reflux and additions head with nickel condensing fingers



Utilises single rotating



GreenHouse Plus allows additions and withdrawals through sealing mats





Reaction block fits directly into Genevac vacuum centrifuges



Radleys Shire Hill, Saffron Walden, Essex, CB11 3AZ. United Kingdom

## GreenHouse Blowdown Evaporator™

## Parallel evaporation of samples in 8 or 24 vials, tubes and microtitre plates

### Features

- · Precise control of inert gas flow combined with digital control of heating carefully evaporates vour samples.
- Interchangeable plates with either 8 or 24 hollow blowdown pins deliver an equal flow of gas to each tube, vial or well.
- The absence of a vacuum avoids bumping, protecting the sample during evaporation.
- Nickel-plated aluminium offers excellent chemical resistance.
- · Easy viewing of samples during evaporation.
- Optional flowmeter precisely controls flow of inert drying gas.



Enclosed design contains evaporating solvent, allowing subsequent trapping and collection of solvent via a high performance glass condenser

Can be converted into GreenHouse Plus Parallel Synthesiser

### **Typical Evaporation Times**

Solvent	Samples	Volume	Vessel	Evap. Time
Methanol	24	2 ml	3.5 ml vial	20 mins
Methanol	8	5 ml	20 ml vial	22 mins
Acetonitrile	24	2 ml	3.5 ml vial	20 mins
Acetonitrile	24	2 ml	7 ml tube	35 mins
Water	8	5 ml	20 ml vial	157 mins
DMF	24	2 ml	3.5 ml vial	138 mins
DMF	24	2 ml	7 ml vial	145 mins
40°C Base Temperature. Flowrate 10 l/min (8 well), 20 l/min (24 well)				

Safety relief valve on inlet prevents over-pressure during operation. Digitally controlled heating from the hotplate gently adds energy to the sample to speed the

Precise heat control and

the absence of a vacuum

protects your sample and avoids bumping.

Blowdown system with 24 pin plate, standard GreenHouse base, reaction block and 7 ml tubes

...or use the dedicated, low profile, Blowdown base.











Blowdown base and

24 position vial rack







evaporation process.

Insert the adapter into the GreenHouse base

GreenHouse base and 24 position vial rack

GreenHouse base and 8 position vial rack

GreenHouse base and 24 position MTP

Blowdown base and

8 position vial rack





#### Compatible with:

- 7 ml GreenHouse tubes
- 8 or 24 position vial racks
- 13 mm, 13.8 mm, 15 mm,
- 24.3 mm & 27.8 mm ø vials • 8 or 24 well microtitre plates



Evaporate 8 vials, each containing 5 ml of methanol, in only 22 minutes

Removable head features guick-release handles for easy exchange of Blowdown pin plates.

Select the appropriate Blowdown pin plate. Interchangeable plates with either 8 or 24 hollow pins deliver an equal flow of gas to each tube, vial or well.

## 24 Position Parallel Work-Up

Designed to make your parallel chemistry work-up and purification quick and easy.



## GreenHouse Work-Up Station<sup>™</sup>

Rapid, sequential, parallel purification in a 24 well, microtitre plate footprint using standard 3 ml or 6 ml filtration, phase separation and SPE columns

#### Features

- Innovative, stacked column design allows sequential purification e.g. phase separation and SPE or filtration and SPE.
- Removable, upper support plate allows unit to be used for single or sequential purification.
- Clear gas cover allows pressure to be applied to increase flow rate of difficult samples. Accommodates all standard 3 ml and 6 ml tabbed or tabless SPE or filtration columns.
- Accepts all standard 24 well microtitre plates, as well as GreenHouse reaction blocks for fraction collection.
- Full range of filtration, phase separation and SPE columns including silica, SCX, aminopropyl and SAX acetate.





# Carousel Work-Up Station<sup>™</sup>

## Easy-to-use, the Carousel Work-Up Station reduces post-synthesis bottlenecks

## Features

- The Carousel Work-Up Station facilitates parallel or sequential work-up of up to 12 samples, using filtration, phase separation, liquid/liquid extraction or SPE techniques.
- The Carousel Work-Up Station accepts 12 x 70 ml columns loaded into one of two identical stackable racks.
- The lower rack supports 12 corresponding Carousel reaction tubes or standard 1 inch boiling tubes for subsequent sample collection.
- SpeediFlow Booster increases flow rates to speed up your work-ups.



### Carousel 12 Plus 12 Position Parallel Work-Up

Designed to make your parallel chemistry work-up and purification quick and easy.

