

## Temperature Controlled Reactors Enable Efficient Scale-Up of Novel Agrochemicals

Asynt reports how **Globachem Discovery** (Alderley Park, UK) has benefited from the investment in ReactoMate reactor systems for the scale-up of **novel agrochemicals**.

**Globachem Discovery** ( <https://www.globachem.com/en/globachem-discovery#> )

is the UK R&D arm of Globachem, a Belgian agrochemical business. The company operates in the early phases of the R&D pipeline, developing new molecules and chemistries for the agrochemical industry. After initial biological efficacy and early toxicology validation, these novel molecules move to the Belgian R&D division for further development into highly effective and economic crop solutions.



### Vicky Jackson of Globachem Discovery commented

"As Operating Officer of the business it was important for me to identify a solution for efficient reaction scale up bridging the gap between small-scale synthesis and production of potential manufacturing routes for further product development. This capability would bring added value to the Globachem business and ensure we can efficiently deliver new products promptly. We assessed several scale-up suppliers, looking for the right equipment to offer us flexibility and the ability, to transition new compounds from early stage research at the bench to commercial manufacturing scale. We selected Asynt as our partner to build this new scale-up capability as they clearly understood our dynamic business needs, and could provide a fully integrated solution through their close working relationship with leading suppliers of stirrers and temperature control systems. Today, our chemists look to the ReactoMate systems to support a vast array of agrochemical synthesis from milligram to kilogram scale. This synthetic chemistry capability allows us to perform a wide range of chemistries such as reductions, oxidations, organometallic and classic peptide coupling reactions. The Asynt reactors allow us to work from -20°C to 180°C and perform distillations under vacuum. Together with the software which allows us to data log key information, store reaction profiles, control the temperature and the stirring speed within a reaction".

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**Amanda Lyons, a synthetic chemist at Globachem Discovery added,**

"We have found the ReactoMate glass vessels very easy to use once bedded in. Our four systems were set up as complete reactor solutions from Asynt with Huber temperature control units. These provide highly accurate, efficient heating and cooling to our vacuum jacketed ReactoMate systems. We have found the vessel drain-off mechanism on the ReactoMate vessels easy to use and easy to dismantle for cleaning. All four reaction vessels are vacuum tight allowing us to undertake low temperature distillations. The stands supplied by Asynt are sturdy and the smaller vessels can be moved quite easily when required. Having a varied range of sizes in ReactoMate has opened up our process development capability considerably".

**For further information**

on the ReactoMate reactor system please visit <https://www.asynt.com/product/reactomate-reaction-systems/> or contact Asynt on +44-1638-781709 / [enquiries@asynt.com](mailto:enquiries@asynt.com).

**Asynt Ltd.**

Asynt is a leading supplier of affordable products, consumables and services for chemists in industry and academia. With a staff of trained chemists - Asynt can draw upon this in-depth applications knowledge to provide a high level of customer support for its DrySyn Heating Blocks, Controlled Lab Reactors, Synthesis Tools, Evaporators, Circulators, Temperature Control Systems, Vacuum Pumps and Lab Safety Equipment.

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