

# Introducing the R2-S

## A SLURRY CAPABLE PUMP MODULE OPTIMISED FOR THE R-SERIES

To further expand the flexibility of the R-Series flow chemistry systems Vapourtec has a pump module optimised for suspensions and light slurries, the R2-S.

As with all other R-Series modules, either acid resistant, high pressure or high flow, the R2-S has plug-and-play connection simplicity. The R2-S features Vapourtec's high pressure precision peristaltic V-3 pump – capable of pumping at up to 10 bar, with flow rates from 0.02 ml/min to 10 ml/min.

### Robust

Simple, reliable and smooth pumping across a wide range of flow rates.

Capable of pumping:

- Strong acids
- Organometallics
- Suspensions & light slurries
- Gases

### Easy to use

- Self priming pumps
- Adjustable acid compatible back pressure regulator
- Can pump two consecutive solvents even if they are not miscible



The Vapourtec V-3 features advanced control for smooth output.

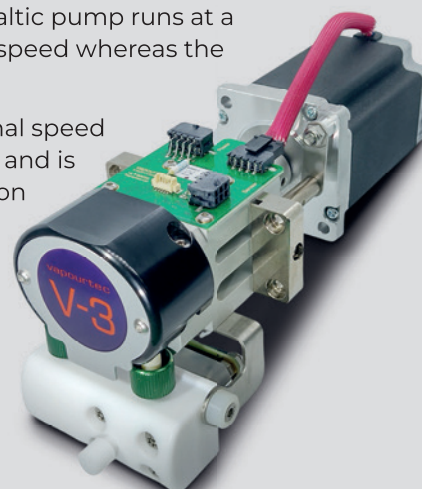
The tube materials are specially developed in collaboration with a major global fluoropolymer manufacturer, resulting in a pump which can generate high pressures and is compatible with synthesis solvents, acids and bases.

### How does the Vapourtec V-3 work?

A standard peristaltic pump runs at a steady rotational speed whereas the V-3 does not.

The exact rotational speed profile is complex and is a patented function of the flow rate, rotor position and pressure.

The result of this advanced development is total simplicity for the user.

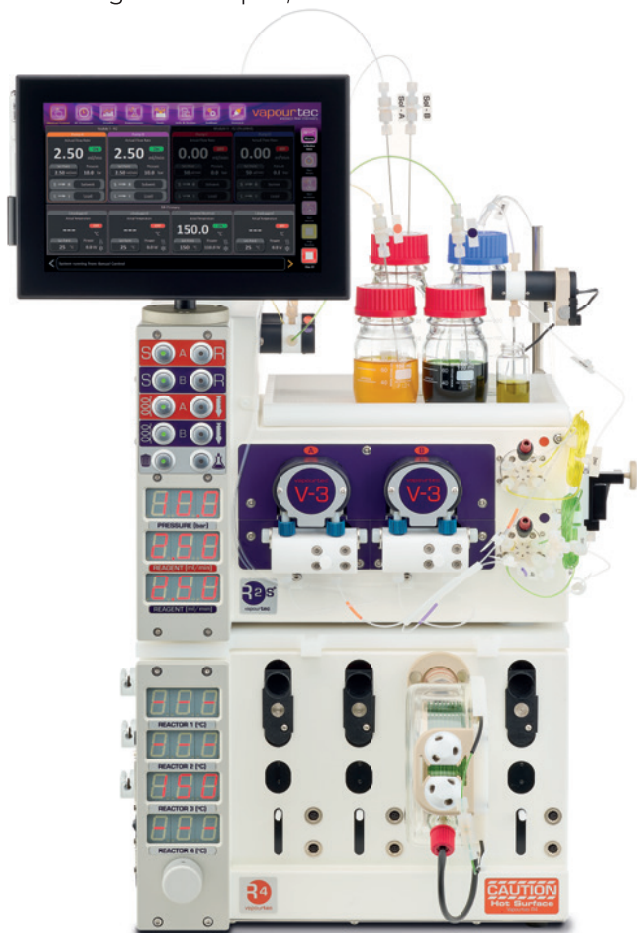


There are two configurations of the new slurry capable pump module:

- R2-S without sample injection loops
- R2-S+ with sample injection loops

The system can be controlled manually with the built in interface or can be used with R-Series software, which allows automation of experiments, logging, charting, reporting, saving and sharing of reaction setup and data.

The R2-S can be integrated with other equipment to provide versatile automated flow chemistry including Autosampler, UV and FTIR.



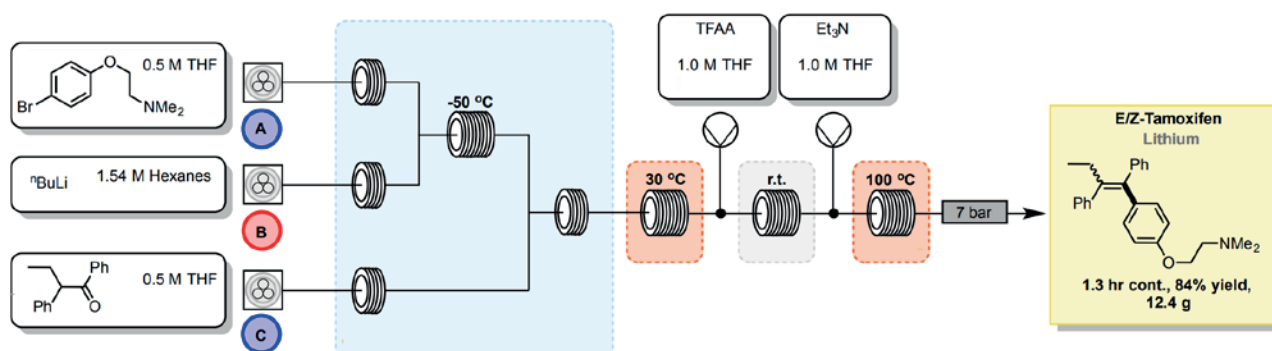
The R2-S can be added to an existing R-Series system to extend capabilities or can be used as the primary pump module for a system. This will still allow expansion of your flow chemistry capability as your needs develop.

None of your investment along the way will ever be wasted. If you buy the simplest system now, no future options are off the table.

The V-3 pump used in the R2-S is well proven. More than 1600 of the Vapourtec V-3 pumps are in daily use in laboratories around the world. One of the principal applications for the V-3 is in pumping Organometallic reagents, this capability has been well documented in peer reviewed publications, for example:

**Continuous Flow-Processing of Organometallic Reagents Using an Advanced Peristaltic Pumping System and the Telescoped Flow Synthesis of (E/Z)-Tamoxifen:**

### Continuous Flow-Processing of Organometallic Reagents



Org. Process Res. Dev. 2013, 17, 9, 1192–1208