

New Larger Volume Reactor

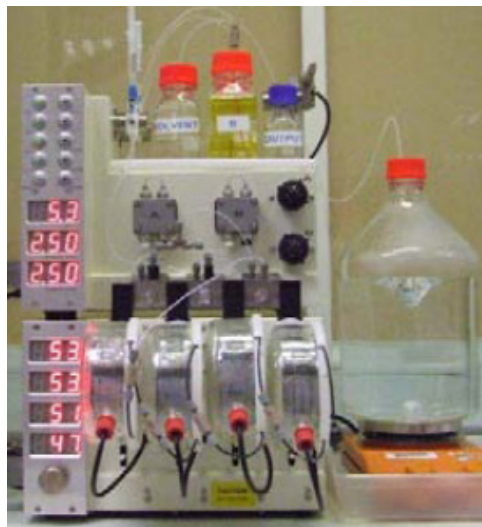
Background

The Vapourtec R Series System offers the facility to use up to 4 tube reactors in series, making what is effectively one single large reactor.

(This setup is shown in action during a reaction scaleup, right).

Up until now, this meant a maximum of 4 x 10ml total reactor volume.

Where reaction residence times are high however, the maximum available reactor volume limits overall flow rates. For example, even with the 40ml total reactor size, a 30 minute reactor time would imply a maximum reaction flow rate of 1.3ml/min.



The Solution

Vapourtec have now created a larger 25ml reactor coil. This means that the total available reactor volume is 100ml. The new coil is made of 316L stainless steel and is available as a direct replacement for existing reactor coils.

FAQ

Q Is this new reactor coil compatible with my existing glass manifolds ?

A Yes.

Q Is this compatible with my existing FlowCommander™ software ?

A Yes, Flow Commander™ just needs to know the reactor volume and all collection timings will be correctly calculated

Q What temperature range is this available for

A Ambient to 150°C (standard manifold).

Q Is there a high temperature version (up to 250 °C)

A Yes. A coil is available for the high temperature manifold but note that the R Series can only accept 2 of the high temperature manifolds so the maximum combined reactor volume for high temperature (> 150°C) work is 50ml. Note also that there is currently a limiting flow rate at which the larger reactor can be used at temperatures > 150°C (2ml / min)

Q Is there an acid resistant version ?

A Not at this time but watch this space... To ensure good heat transfer, these larger reactors cannot currently be constructed using fluoropolymer tubing due to the wall thickness requirements.

Q Is there a cooled (-70°C) version of the larger reactor ?

A No. Typically, reactions that are to be cooled are rapid and if anything require small (2ml) reactors rather than bigger reactors.

Q How much does it cost ?

A Please contact Vapourtec. The cost is similar to a Vapourtec 10ml stainless steel high temperature reactor coil.

Q When is this item available ?

A 1st April 2011