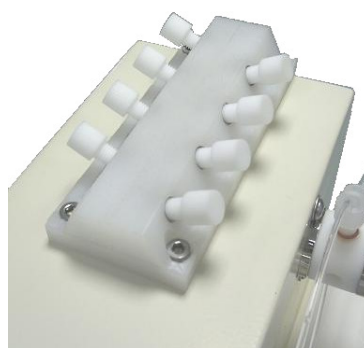


## Inert gas Manifold

July 2011 - Vapourtec announce a new feature on R Series Flow Chemistry systems, making it easier to apply an inert or dry gas blanket to air or moisture sensitive reagents.

A low pressure gas regulator is included, built into the pump module.



### Background

It is sometimes necessary (for example when working with organometallic reagents) to ensure there is a positive pressure of dry nitrogen connected to the headspace above the reagent.

The fallback option for such a task is often a balloon attached to a needle piercing the reagent bottle septum. While this might be OK for 30 mins or so, atmospheric oxygen, water or carbon dioxide can diffuse surprisingly fast through a balloon skin (even against inert gas pressure) so this may not be reliable as a long term solution.

The requirement, therefore, is to use a piped supply of dry nitrogen, which in turn means setting up a suitable pressure regulator and fittings. This can be time consuming at best.

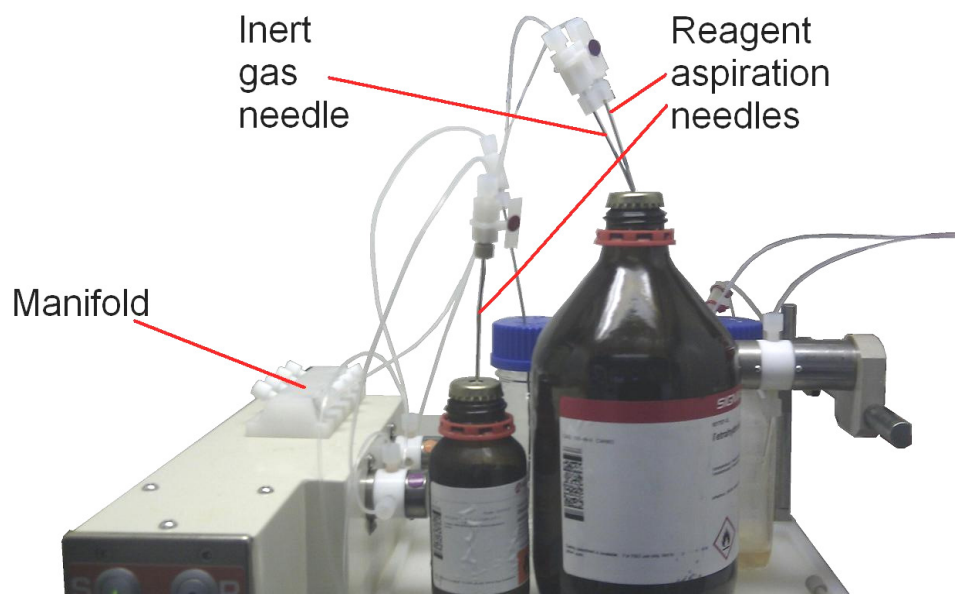
### Simple but Effective

For this reason, Vapourtec have introduced the inert gas manifold as a built in feature of the R2 series pump modules.

Gas is brought into the module at full line pressure (see right) and is regulated internally down to 50mbar, then distributed to a manifold situated next to the reagent tray.

Up to 8 tubes with septum piercing needles can then be taken from the manifold to the nearby reagent bottles, while unused ports on the manifold remain closed.





## FAQ

Q When is this feature available

A Systems that shipped from 1<sup>st</sup> July 2011 have the capability to be upgraded with this feature. Systems shipping from 1<sup>st</sup> September 2011 will include the inert gas manifold as standard

Q What would an upgrade entail ?

A If the system is returned to base or an engineer visits the site, the feature can be added to an upgradable system in less than 1 hr.

Q Can I purchase an upgrade kit and do the upgrade myself ?

A Not at this time.

Q What is the extra charge for this feature ?

A There is no increase in price of the pump module for the addition of this facility.

Q Do the manifold fittings have individual shutoff valves ?

A No. The pressure is low (50 mbar) so even if fittings are changed while the gas is under pressure, the rate of gas escape is low. Of course, the user is free to add such fittings if preferred.

Q Are septum piercing inert gas needles and tubes included ?

A No, but they can be obtained from Vapourtec if required.

Q What supply pressure is it rated for ?

A The supply must be  $\leq 10\text{bar}$