PRESS RELEASE

How Choice of Reactor Vessel Affects Reaction Performance

Asynt has produced a **new report**** that compares the thermal performance and advantages of **vacuum jacketed** versus **non-vacuum jacketed reaction vessels.**

Data is presented for vacuum jacketed and non-vacuum jacketed reaction vessels connected to a Julabo Presto A30 temperature control system. The report demonstrates that a vacuum jacketed vessel not only achieved faster rates of cooling but was also able to maintain a reaction at -20°C compared to just -15°C for the non-vacuum jacketed vessel. Beneficially, also using a vacuum jacketed vessel was shown to eliminate ice formation on the outside of the reactor glass (a common problem with non-vacuum jacketed reaction vessels), allowing continuous viewing of the reactor contents.

By reducing heat loss / gain a glass vacuum jacket enables faster rates of heating and uses less energy to cool the system, thereby enabling lower temperatures to be achieved than reactor vessels without a vacuum jacket. The report concludes that using a vacuum jacketed reaction vessel will allow you to optimise thermal performance thereby improving control of reactions. In addition, the report proposes that the small additional cost of a vacuum jacketed vessel is easily justified not only by the additional performance but also by the cost saving of being able to use a lower powered temperature control system.

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Vacuum jacketed reaction vessels are available as options for the Asynt ReactoMate Pilot (5-50 litres) and for the Asynt ReactoMate Datum (100ml - 5 litres) reactor systems.

For a copy of the report and further information on vacuum jacketed reactor systems please visit http://www.asynt.com/product/vacuum-jacketed-reaction-vessels/** or contact Asynt on +44-1638-781709 / enquiries@asynt.com.

Asynt is a leading supplier of affordable products, consumables and services for chemists in industry and academia. With staff of trained chemists - Asynt is able to 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 Laboratory Safety Equipment.

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Illustrative image: (image available on request)

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