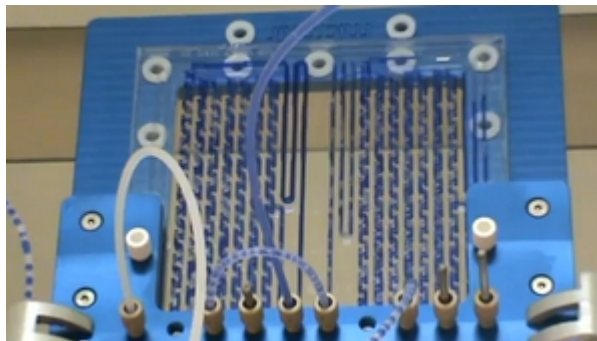


Micro-Reactor Technology

Micro reactors are continuous reactors with extremely small physical size. These configurations are used to enhance the surface-to-volume ratio hence to improve heat transfer and increase selectivity.



Such sizes are suitable for pilot scale reactions but this solution can be transposed to production scale capacity as well by combining multiple reactors operating parallel to each other.

Due to its features these alternative reactors are very convenient, because a superior control and optimal use of reagents is achieved. Since all the process takes place in a closed system, toxic, hazardous or explosive chemicals can be used without raising severe safety and environmental issues.



Given that the micro reactors have exceptionally small sizes, extremely subtle flows are involved, thus to achieve an optimal process, appropriate peripheral flow controllers and dosing systems will be required. One of the solutions developed by Bronkhorst involves the

use of our unique flow sensor of the mini CORI-FLOW™ series with controlling function, a gear pump, a filter, a check valve and all interconnecting material. The advantage of this setup is the possibility to have a stable and accurate liquid flow without gas bubbles. Additionally, the system is suitable for several dissimilar liquids due to the Coriolis measuring principle.



For more information on how Bronkhorst can help with controlling Micro Reactors please contact Flowcon Technology at: