H-Cube®
Autosampler

H-Cube® Autosampler is the integration of Thales-Nano's revolutionary benchtop hydrogenator with a Gilson 271 liquid-handling robot creating a fully automated hydrogenation platform. The two systems work together seamlessly through the H-Sampler control software. Incorporation of the H-Cube® into a liquid handling system means a large number of small-scale compounds (up to 10 mL) are injected sequentially into the device at timed intervals and the hydrogenated products collected in different fractions. By reusing the catalyst, removing the filtration step, avoiding pressurizing and depressurizing between samples, the process produces optimal throughput.

With its capabilites in sample injection and fraction collection H-Cube® Autosampler can be used for the synthesis of libraries of compounds, fast reaction optimization and catalyst screening.

FEATURES:

- Enables hydrogenation reactions to be easily incorporated into an automated laboratory environment
- The H-Sampler control software is an easy-to-use interface that operates the H-Cube® and the liquidhandler
- Reaction parameters and experiments are logged in the program to allow reactions to be retrieved and repeated
- The liquid-handler racks can be configured in standard formats (provided by Gilson), or to individual customer requirements. The rack configurations are easily input in the H-Sampler program
- Reaction progress can be monitored on the PC, which can also be at a remote location to the H-Cube® Autosampler
- The liquid-handling technology is provided by Gilson, using the GX 271 platform

H-Cube®
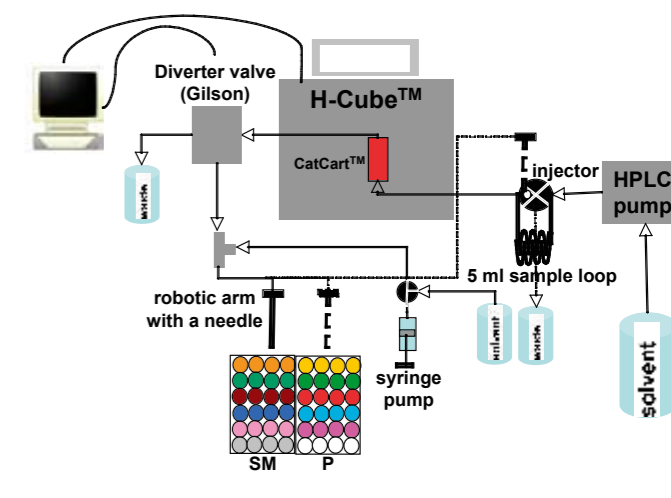## Autosampler

"good reactions"™

ADVANTAGES

Revolutionary

- The continuous flow hydrogenation of the H-Cube® allows the integration of hydrogenation as the last step of automated synthesis
- The H-Cube® Autosampler may be placed under a regular fume-hood. No need for an explosion-proof environment or external hydrogen source
- The entire sequence can run unattended, and be supervised remotely from a distant location

Efficient

- Reaction parameters are automatically set and the reaction only starts when H-Cube® has fully stabilized
- Reaction times take only a few minutes. Pressure and temperature can be optimized to 100% product conversion
- Easy to use PC based software, with user customizable parameters

Convenient

- Fully integrated solution
- Experiments logged into files

TECHNICAL DESCRIPTION

Liquid-handling robot and racks

The H-Cube® autosampler is equipped with a Gilson 402 syringe pump and GX 271direct injector.

The Gilson code 23W sample rack has 5 mL scintillation vials, the Gilson code 24 sample rack has 25 mL vials. Other code 20 racks are optional.

PC

The PC has to be provided by the client. H-Sampler operates in a Microsoft Windows XP environment.

H-Cube®

H-Cube® Autosampler is equipped with the ThalesNano H-Cube® Peek.

If you require further information on the instrument, or would like to have a Demonstration scheduled, please contact: