

Screening of differing reaction parameters



Why ScreenX?

In recent years, the demands placed on modern laboratories have been steadily increasing. Data and results not only have to be documented more quickly but also in more detail. Quantities must be minimized for reasons of cost and the normally insufficient space in the laboratory has to be used more efficiently.

Our answer to these demands in the field of process and operational optimization is: “**ScreenX!**”

The **FlexyCUBE** is already established in the chemical synthesis industry as a tool for qualitative and efficient parallel process optimization – the laboratories of the well-known market players would be inconceivable without it. By using the **ScreenX** add-on, these well known advantages can now be extended to include task areas of route finding, solvent, educt and catalyst screening, as well as use tests in order to optimize the reaction time (kinetics).

Benefits

ScreenX allows screening and parallel chemical process optimization to be performed with a single tool.

- + Cost-effective add-on solution
- + No additional space is needed
- + Software based on FlexySys, which means that no additional user training is required
- + Automated documentation of the experiments
- + Four parallel syntheses per reactor unit
- + Plug and Play
- + No cleaning needed and there is no cross-contamination (thanks to single-use glassware)

Technical details

- + Volumes: 1 to 10 ml
- + Temperature adjustable from -40 to +180°C
- + Stirrer: 70 to 600 rpm
- + Graphic display of the process parameters
- + Recipe mode
- + Data collection and reporting

Out of conviction

FlexyCUBE with **ScreenX**: YOUR combination for successful chemical process development.



ScreenX—main unit

The **ScreenX** consists of a magnetic stirrer unit bolted to the heat transfer block. In this heat transfer block, a resistance-type thermometer is used to determine the TR temperature.

The four test tubes feature screw caps with integrated septums. These units are single-use items and are replaced after each experiment.

Customization

These single-use items (test tubes and caps/septums) are already available in most laboratories. We will adapt **ScreenX** on the basis of your standardized test tubes so that you do not have to worry about procuring two additional consumable articles.

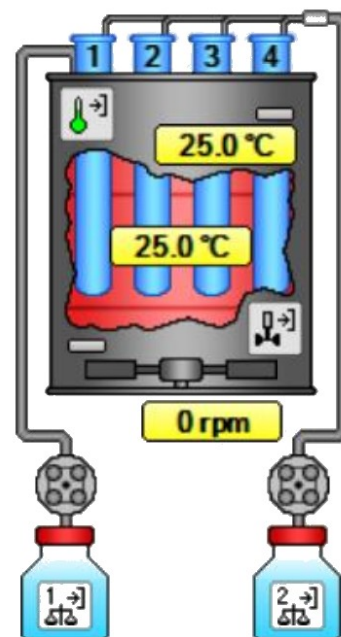
ScreenX—functions

The following functions and options can be implemented fully automatically, reproducibly and efficiently with the **ScreenX**:

- + Reactor or jacket-controlled temperature control
- + Stirrer speed
- + It is possible to meter different amounts or concentrations for each test tube
- + Illumination for the visual inspection of the reaction mixture
- + and much more

ScreenX—dosing unit

The **ScreenX** dosing unit can be plugged directly into the FlexyCUBE and controlled via software. The dosing rates are recorded and displayed graphically. Dosing is performed at the same ejection speed in all four test tubes of the **ScreenX**.



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