Büchi Parallelreaktorsystem
PPR
Sicher, Flexibel und Effizient
PPR – Parallel Pressure Reactor
New and innovative solution for hydrogenations and catalyst screening

- High reproducibility
- Safety
- High reliability

also used for:
- Carbonylation by CO / Carboxylation by CO₂
- Decarboxylation
- Friedel-Crafts-Acylation
- Ethoxylations (optional)
- General gas reactions by constant flow (CO, CO₂, Ethylen, O₂, NO)
- Design of Experiments (DoE)
- Quality by Design (QbD)

Facts and figures:
- 1 to 6 Reactors
- 50 to 300 ml, -20°C…300°C
- 100 bar
- parallel (catalyst screening) / individual operation mode
- gas / liquid dosing
- automated sampling system
- Batch-/semi-Batch operation
PPR – Parallel Pressure Reactor

Control of 1 to 6 Reactors

- Parallel Reactor system – with individual reactor settings
- Parallel or individual operation mode
- Configurable recipes by editing existing procedures or by defining new process steps
- High reproducibility by automation
- Cost effective
Joined expertise for best results

Reliable Büchi Reactor Technology
- high pressure reactor
- stirrer drive, magnetic coupling (75 Ncm torque)
- 50 – 300 ml reactor
- 100 bar
- individual temp. control -20°C .. 300°C
- stainless steel, Hastelloy, Tantalum, PTFE inliner

Userfriendly and compact
- Fast action closure
- Lifting / lowering of heating block

SYSTAG – Automation Expertise
- Visual control of single process step
- Easy-to-use interface
- Flexible application
- GxP compliant software
- Electronic Lab-Journal

Setting up recipes by defining individual steps
- Drag&Drop Recipe Editor
- Recipe modification “on-the-fly”
- Events for If..then…else logics, Loop, Jump back to phase…
Functionality

Control Parameters
- Pressure control
- Flow control
- Gas consumption
- Temperature
- Liquid dosing, up to 275 bar pressure via balance
- Stirrer speed
- Safety Limits

Automation – procedures defined for complete processes or single process steps like:
- inertisation
- leakage control
- nitrogen / active gas purging
- constant-flow mode
- constant-pressure mode
- many more

Data evaluation and online trending of all important parameters

Individual chart for each reactor
Actual Gas-Flow (nL/min)
Gas-consumption
Temperature, pressure, rpm, feed, …
Export to Excel, ASCII-format

End criteria, stop hydrogenation by:
- Total gas consumption
- Minimal gas flow
- Time or event controlled

Options

Automated Sampling
- sampling systems – contamination free
- up to 4 samples of each reactor
- automated (recipe) or manually controlled

Liquid dosing
- SS316 or PEEK corrosion resistant metering pump, flow rates 0.003 to 40mL/min

Reactors Options
- Gas-stirrer for homogeneous gas dispersion
- Catalyst baskets
- Burettes

Others
- IQ/OQ on request
- Customised Software

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