

NORMAG

Lab & Process Glass

Lab Fast Pro Reactor System

Components, Apparatus
& Systems



GMM
Pfaudler

NORMAG

— Lab & Process Glass

NORMAG is a high quality brand of glassware for the chemical and pharmaceutical industries and research.

Thanks to the expertise in glass-blowing, NORMAG is a partner in the Research & Development department of the chemical and pharmaceutical industries.

Based on the achievements of these partnerships and the expertise of our teams, we have developed a unique and highly qualitative component program and complete glass equipment, as well as units from laboratory to production scale.

PRODUCTS & EQUIPMENT

Components & Apparatus

Tubes/Capillaries/Rods

Semi-Finished
Products/Accessories

Coupling Systems

Parts/Components

Equipment

Automation

Units & Processes

Rectification

Absorption/Scrubber

Distillation

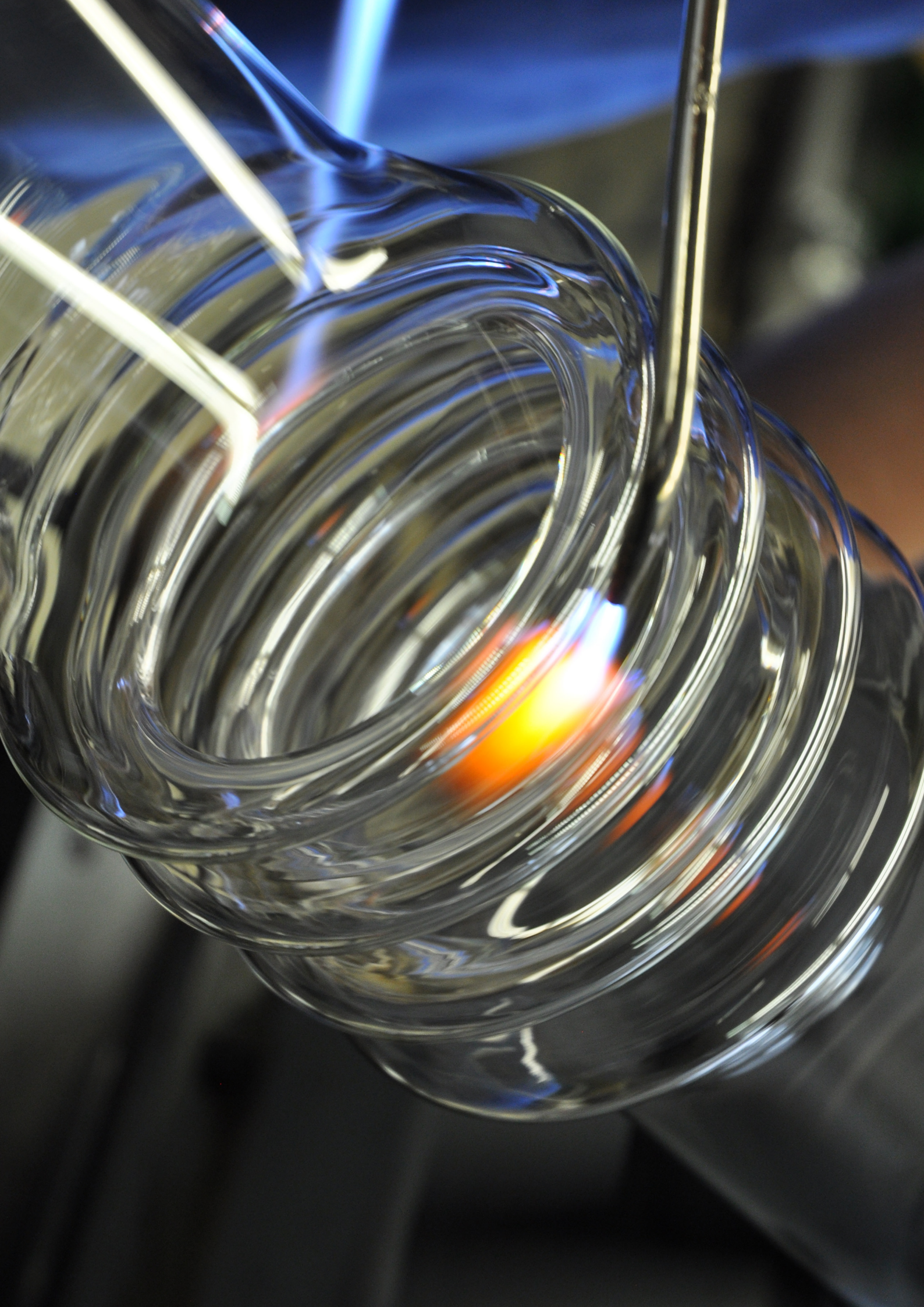
Reaction & Crystallization

Filtration

Evaporation

Extraction

Dedicated Customer Systems



Reactor System Lab Fast Pro

Rethinking the LAB System - 1 up to 10 litres

Description

The NORMAG LAB reaction, filter and filter reactor system can be rebuilt in just a few steps without the need for any tools, thus saving space, costs and time.

Thanks to the triple holders Basic and Pro, the bowl and hood can be changed independently of each other.

The large selection of components and almost unlimited choice of connection options allows great freedom for customization and later expansion.

Since we at NORMAG always rely on widespread standard flanges and cuts, we can also use existing accessories. Just as future-oriented and customizable is the associated control and data storage CU Pro2, which can be coupled with many laboratory devices (pumps, scales, ...), sensors and actuators.

Access is via Wifi or LAN and can be done by PC / Mac / Smartphone / Tablet. We are happy to help you with the selection and also with further adjustments.

Advantages

- Flexible system that saves space, costs and time
- Triple holder enables fast, independent conversion of vessels and hood
- Thanks to standard ground joints and flanges, existing accessories can be used
- Connection to other laboratory devices by control unit CU Pro2
- Data storage and recipe management



Components & Options

for your version of the Reactor System Lab Fast Pro



Agitator

We offer all common laboratory overhead stirrers and stirrers.



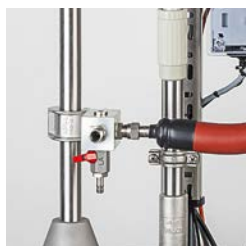
Stirring coupling

- Stirrer coupling basic
- Stirring coupling pro with mechanical seal
- Magnetic coupling up to 400 Ncm



Hood

- DN 100, 150 and 200 with laboratory flange
- large standard range and adaptable to your needs



Thermoblocks

- For easy and quick change of the vessels
- Allows comfortable draining of tempering oil



Distillation top

- Distillation top basic with manual return divider, reflux condenser up to 0.3 m², various collecting flasks or distributor
- Distillation top pro with electromagnetically controlled return divider, reflux condenser up to 0.3 m², various collecting flasks or distributors, CUeasy for control (not applicable with CU Pro2)

Components & Options

for your version of the Reactor System Lab Fast Pro



Control and data backup

- CU Pro2 with integrated control, data backup and recipe management (optional)
- Many thermostats, vacuum pumps, liquid pumps, agitators, scales, sensors, ... compatible
- Control can be adapted again and again to new needs
- Based on Beckhoff industrial components
- Connection via Wifi or LAN to any browser capable device, in the example picture a Surface Tablet
- Data backup as Excel file

Racks

- Rack pro with triple holder pro as shown in the picture
- Rack basic with triple holder basic

Dosing of liquids and solids

- Manual dosing funnel with NORMAG glass needle valve for finely regulated addition of liquids
- manual or stepper motor controlled solids metering funnel
- Dosing via pump, with coupled flow meter or with coupled balance
- Dosing via suspended load cell, with solenoid valve



For requirements on explosion-proof areas ask us. We will find a solution for you.

Components & Options

for your version of the Reactor System Lab Fast Pro



Reaction vessels

- 0.1 to 5 l, with DN 100, 150 and 200, with and without tempering jacket and vacuum insulation, all graduated vessels and 1.25: 1 ratio for scale up experiments
- Connections for temperature control optimized for idling the temperature control
- Temperature control jacket optimized for better heat transfer
- NORMAG bottom drain valve optimized for dead space and easy to clean, with integrated compression spring for leak-tightness at all temperatures
- Temperature control connections DN 15 for high flow rates without congestion and optimized heat transfer

Filter reaction vessels

- 0.1 to 5l, with DN 100, 150 and 200
- Temperature control jacket with NORMAG deflectors for best heat transfer into the flange, without cold bridges
- Temperature control connections DN 15 for high flow rates without congestion and optimized heat transfer
- Filter plate hold up optimized and quickly changeable without tools
- Different filter papers or fabrics can be used



Filter vessels

- 0.1 to 5l, with DN 100, 150 and 200
- Filter plate hold up optimized and quickly changeable without tools
- Different filter papers or fabrics can be used

Worldwide Presence



GMM Pfaudler is a global leader in corrosion-resistant technologies, systems, and services for the chemical, pharmaceutical, food and energy industry.

Our Branded Product Lines that include PFAUDLER, NORMAG, MAVAG, MIXION, INTERSEAL, EQUILLOY, EDLON and HYDROAIR showcase our strength as a group, our capabilities, and our pursuit for constant innovation. With an end-to-end solutions-oriented approach, a global footprint, and a perfectly integrated offering system we are able to meet complex industry demands worldwide.

GMM Pfaudler is driven by 1800+ individuals across 4 continents and 15 global manufacturing facilities around the world. The Group's targeted investments in strategic markets, innovation and competitiveness paves the way forward for GMM Pfaudler's continued legacy.

80+
Countries

1800+
Employees

04
Continents

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