

# Product Overview



AZIENDA CON SISTEMA  
DI GESTIONE QUALITÀ  
CERTIFICATO DA DNV GL  
= ISO 9001 =



STEROGLASS s.r.l  
Via Romano di Sopra, 2/C

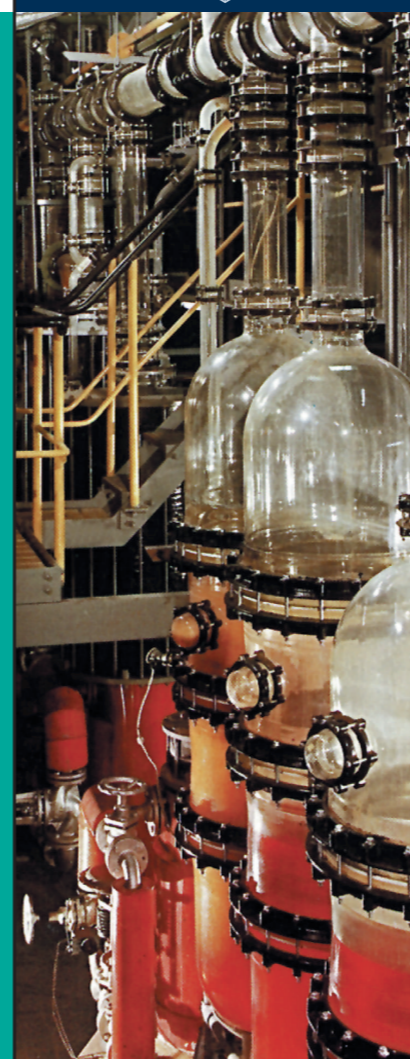
06132 - S.Martino in Campo  
PERUGIA - ITALY  
Tel. +39 075 60 90 91  
Fax +39 075 60 90 950

http: [www.steroglass.it](http://www.steroglass.it)  
e-mail: [info@steroglass.it](mailto:info@steroglass.it)

# Product Overview



## Process Division

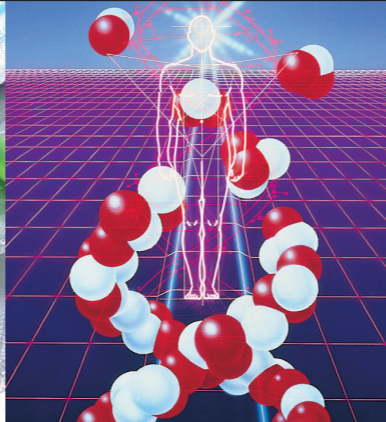




Fine Chemicals  
and Organic Systems



Pharma Kilolab  
and Drug Discovery



Diagnostic  
and Biotech



Goldsmith  
Refinery



Herbs  
and Cosmetics



Green-tech



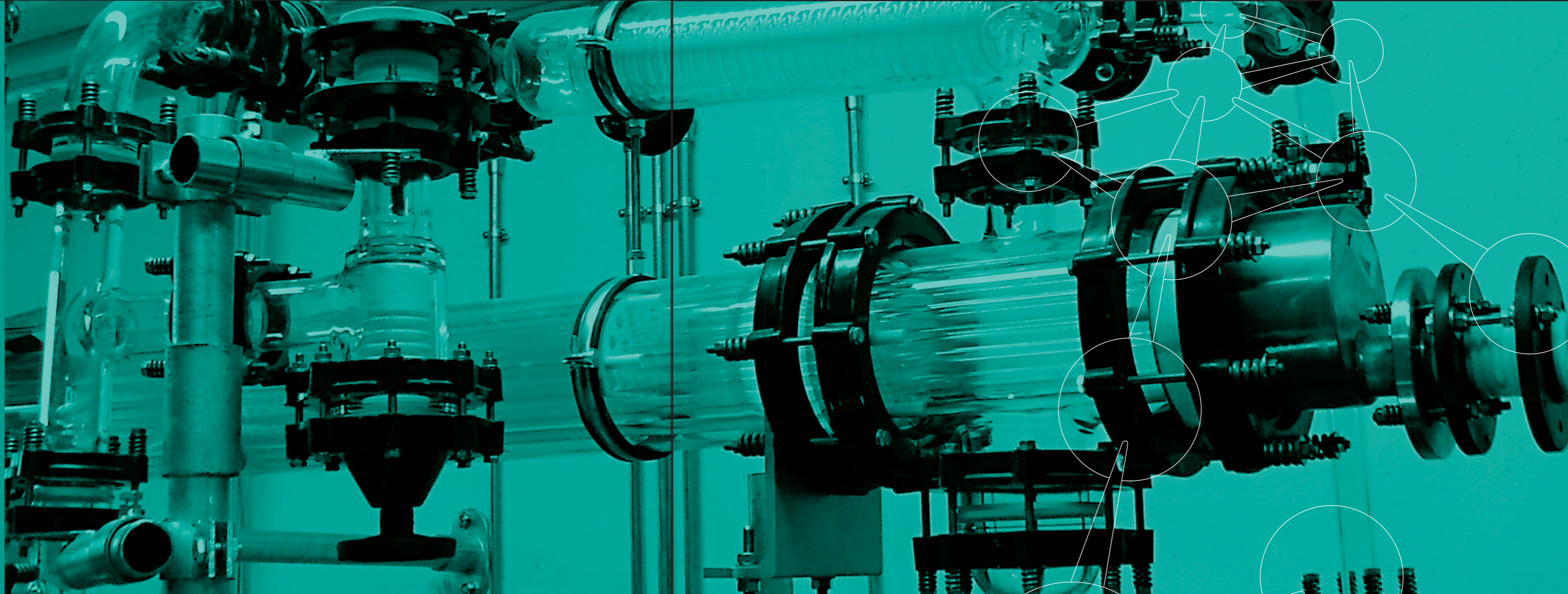
## Application Fields

## Our Mission

For over 50 years **Steroglass®** has been operating globally in the chemical, biotechnological and pharmaceutical fields. The Falocci owners have successfully achieved significant goals by designing and manufacturing innovative borosilicate glass lab equipment, industrial plants for chemical and pharmaceutical applications as well as electronical instruments with high-tech mechanical components and related software.






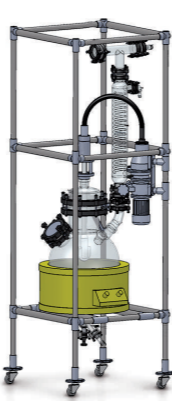

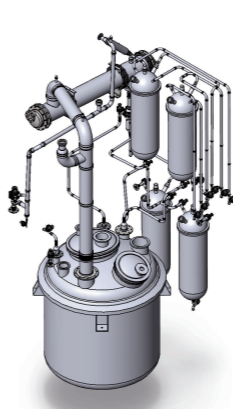




**Steroglass®** mainly focuses on evaporation, titration, metal detection, enzymatic and colorimetric analyses, glassware solutions and reactors.

Research and Innovation are the heart of our business. It is not simply about enhancing technical features, it's about re-thinking processes, transferring solutions applied in other sectors, finding new ways to best meet Customer needs. R&D continuing efforts combined with accurate personnel recruitment enable us to be highly competitive in the scientific fields worldwide.



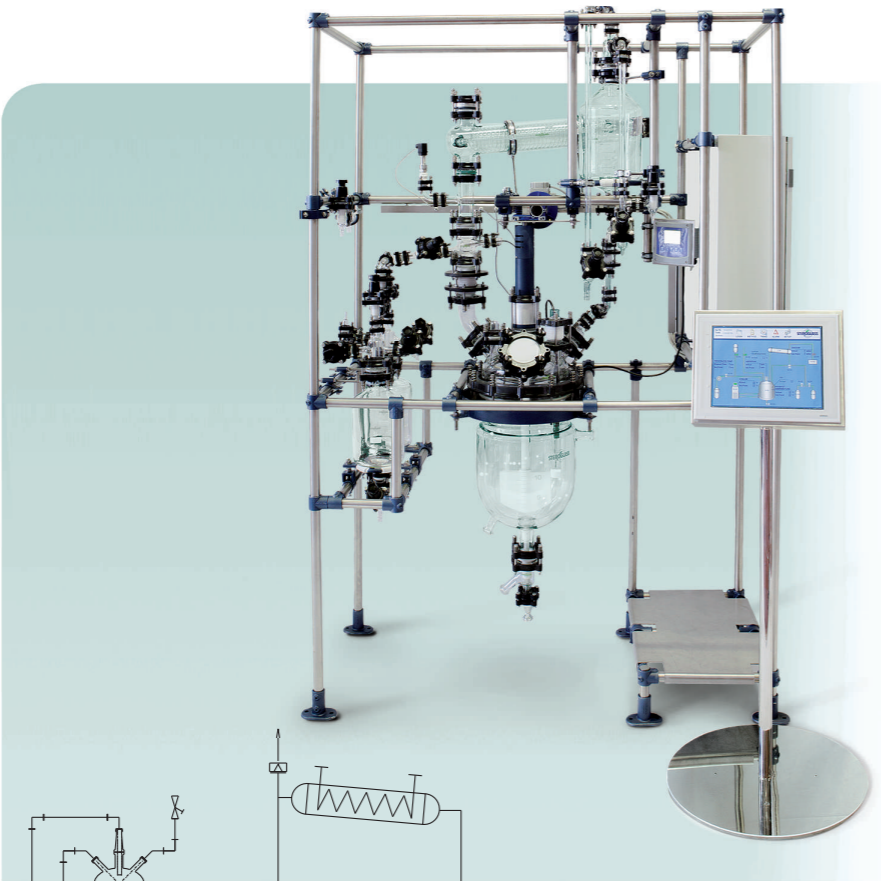
## Index

Reactor Specialist	04
Custom Plants	06
Top of Temperature Control JULABO	07
Pressure Reactor specialists	08
Flow Chemistry specialists	08
Rotary Evaporators STEROGLOSS	09
Spare Parts and Custom Solution	10
Technical Assistance	12

												
	GLASS MIXER REACTOR	LAB REACTOR	BASIC PILOT REACTOR	PLUS PILOT REACTOR	CUSTOM PILOT REACTOR	SPHERICAL PILOT REACTOR	GLASS LINED REACTOR	LARGE SCALE CUSTOM ENGINEERING SOLUTIONS	ACCESSORIES AND SPARE PARTS	FILTER REACTOR	CUSTOM GLASS MIXER REACTOR	GAS SCRUBBER
	10-400 lt -60° (-90°)...+180°C -1... +0.5 bar	300 ml - 7 lt -60° (-90°)...+180°C -1... +0.5 bar	10-30 lt -60° (-90°)...+180°C -1... +0.5 bar	10-100 lt -60° (-90°)...+180°C -1... +0.5 bar	1-400 lt -60° (-90°)...+180°C -1... +0.5 bar	20-200 lt -60° (-90°)...+180°C -1... +0.5 bar	25-50-100-200 lt -20° ...+180°C -1... +0.5 bar	250-12.000 lt -60° (-90°)...+180°C -1... +0.5 bar	-60° (-90°)...+180°C -1... +0.5 bar	1-30 lt -60° (-90°)...+180°C -1... +0.5 bar	10-400 lt -60° (-90°)...+180°C -1... +0.5 bar	10-100 lt -60° (-90°)...+180°C -1... +0.5 bar
PRODUCTION												
KILO LAB												
PILOT PLANT												
LABORATORY												
PREPARATION												
PROCESS												
FILTRATION PURIFICATION												
WASTE HANDLING												

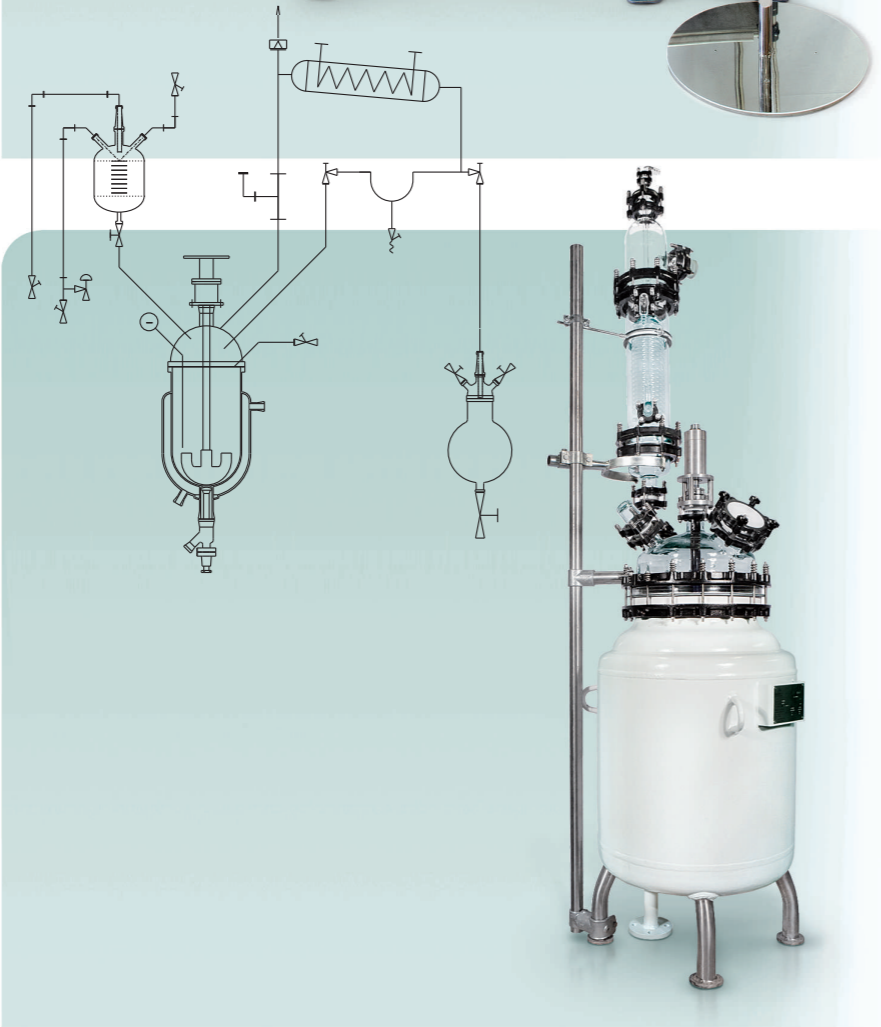


•Custom Pilot Reactor



•Glass Lined Pilot

Steroglass® can supply vessels and turn-key borosilicate glass-lined plants, ensuring the best possible support for both engineering companies and direct customers.



Experience, competence, innovation – at the highest standards in industry, research and science.

For more than four decades **JULABO** has been one of the worldwide leading specialists in temperature control systems. High-quality products, systems and solutions have contributed effectively to the improvement of temperature control all over the world. Highly professional team and global after-sales service guarantee every customer need with unequalled quality.

**JULABO** is driven by environmental sustainability, which makes it the ecological pioneer of the temperature control industry.



				Julabo models		
Indication Capacity	Working Capacity	Actual Capacity	Jacket Capacity	-15°C and above	-50°C and above	-80°C and above
300 ml	380 ml	780 ml	780 ml	Corio CD-200F (no ext. sensor) F25-ME CF31	FP50-MA (no ext. Sensor) FP50-ME	FP89-ME
500 ml	560ml	960 ml	960 ml	Corio CD-300F (no ext. Sensor) F25-ME CF31	FP50-MA (no ext. Sensor) FP50-ME	FP89-ME
1L	1180 ml	1600 ml	1600 ml	Corio CD-600F (no ext. Sensor) F32-ME CF31	FP51-SL	FP89-ME
2L	2060 ml	2560 ml	2560 ml	F32-ME CF31 Presto A30	FP51-SL	FP89-ME
3L	3280 ml	3660 ml	3660 ml	CF41 Presto A30	FP89-ME Presto A80	FP89-HL
5L	5290 ml	6000 ml	6000 ml	FP50-ME Presto A40	FP89-ME Presto A80	Presto A85
10L	12L	19 L	19 L	FP51-SL Presto A40	FP89-ME Presto A80	Presto A85
20L	22 L	32 L	32 L	FP51-SL Presto A40	Presto A85	Presto W91
30L	32L	47 L	47 L	FP55-SL Presto A45	Presto A85	Presto W91
50L	57L	77 L	77 L	FP55-SL Presto A45	Presto A85	Presto W91



# Pressure Reactor specialists

## High Pressure Autoclave (a)

- 25ml - 100lt volume
- Pressures up to 350 bar at 500 °C
- Zero leakage magnetic drive
- SS316/316L, Hastelloy B/C, Monel, Inconel, Nickel, Titanium, Tantalum
- Fully automated pilot plants with SCADA software
- Ex-proof/ CE/ PED/ ASME/ CSA/ UL certified systems
- Ideal for any lab to pilot scale high pressure chemical reactions.

## Fixed Bed Catalyst Reactors (b)

- Tubular micro reactors with packed catalyst bed
- Fixed, fluidized & trickle bed reactor system
- Pressures upto 100 bar
- Temperatures up to 1200 °C
- Completely automated system integrated with all instrumentation & SCADA software
- For catalyst testing, oxidation, reforming, hydrogenation, liquefaction, fischer tropsch process, hydro-cracking, carboxylation etc.

## Glass-PEEK Autoclaves (c)

- 100ml-2lt capacity jacketed glass vessels
- All wetted parts of peek/glass
- Up to 10 bar pressure at 180°C
- Suitable for most corrosive media
- With peek magnetic drive hence zero leakage & no maintenance
- Can be used for reaction calorimetric with suitable probes



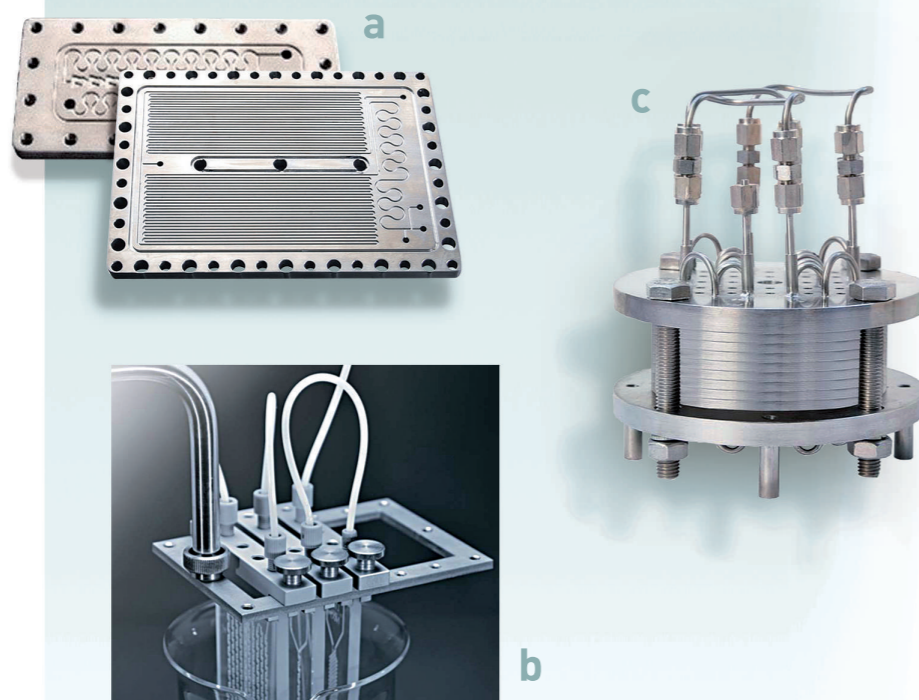
# Flow Chemistry specialists

## High Pressure Autoclave (a, b)

- Multilayer metal (AMaR-1, AMaR-2) & glass construction (LTFGermany) for reaction, mixing & heat transfer
- Micro channels with modular system to connect multiple reactors in series or parallel
- Pressures up to 100 bar at 400°C
- Output of few ml/hr to tons/day
- Reactor system with pump, process control & automation
- For liquid-liquid, gas-liquid, homogeneous organic-inorganic, photochemical etc. reactions

## Continuous Flow Microreactors Pilot to plant scale (c)

- 3D flow reactor with internal volumes up to 600ml & flow rate range up to 600gm/min
- Tubular flow reactor with internal volumes up to 5 lt & flow rate range up to 5000 gm/min
- Pressures up to 50 bar & temperatures up to 500°C
- MOC SS316, Hastelloy C, Inconel, Titanium
- Amar series in tecnica collaboration with CSIR-NCL, Pune



# Rotary Evaporators



STRIKE<sup>®</sup> 8

Industrial Rotary Evaporator

## STRIKE 100 - 50, 100lt ROTARY EVAPORATOR

Steroglass<sup>®</sup> marked another breakthrough introducing the new STRIKE<sup>®</sup> 100, a large-capacity rotary evaporator designed for industrial plants. It meets all the process needs by using borosilicate glass and PTFE permitting aggressive substances treatment. The unit runs under vacuum or atmosphere conditions. The rotation of evaporation flask in the thermostatic bath results in a forced convection and homogenous distribution of the product, thus preventing sedimentation. Moreover, the flask ensures high evaporating exchange surface. The sealing system guarantees perfect vacuum tightness and maintenance-free operations. STRIKE<sup>®</sup> 100 is equipped with a 7" graphic display.

STRIKE<sup>®</sup> 100 Atex version is in compliance with the ATEX European Directives that regulate explosion-proof manufacturing materials.

STRIKE<sup>®</sup> 100 Atex is T3 or T4 certificated. T3 or T4 protection level can be chosen according to the applications needed. Models are available with descending or reflux plastic coated glassware.



## Supporting Structures

- Stainless steel
- Galvanized steel
- Epoxy coated paint
- Kee klamp based
- Movable structure
- Welded skid

## Heating and cooling

- Electric heating
- Oil bath
- Thermostatic unit

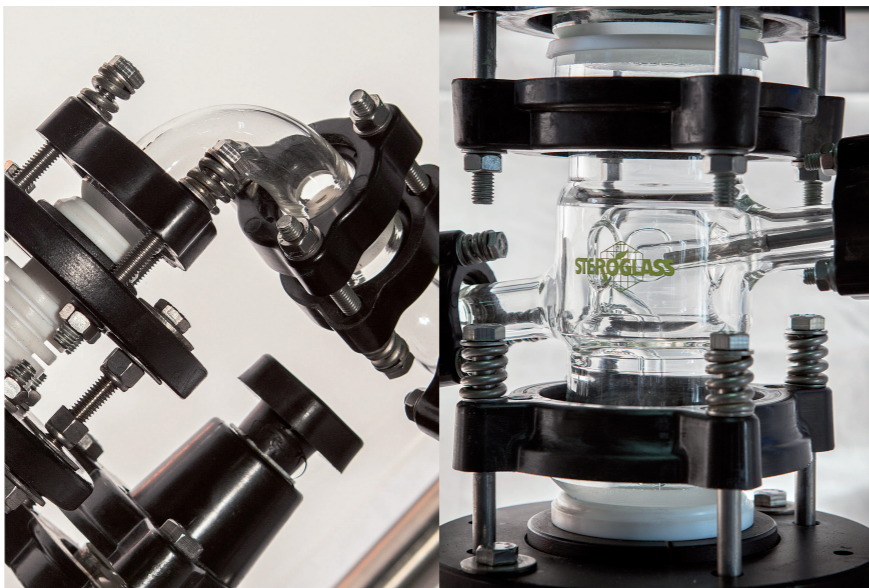
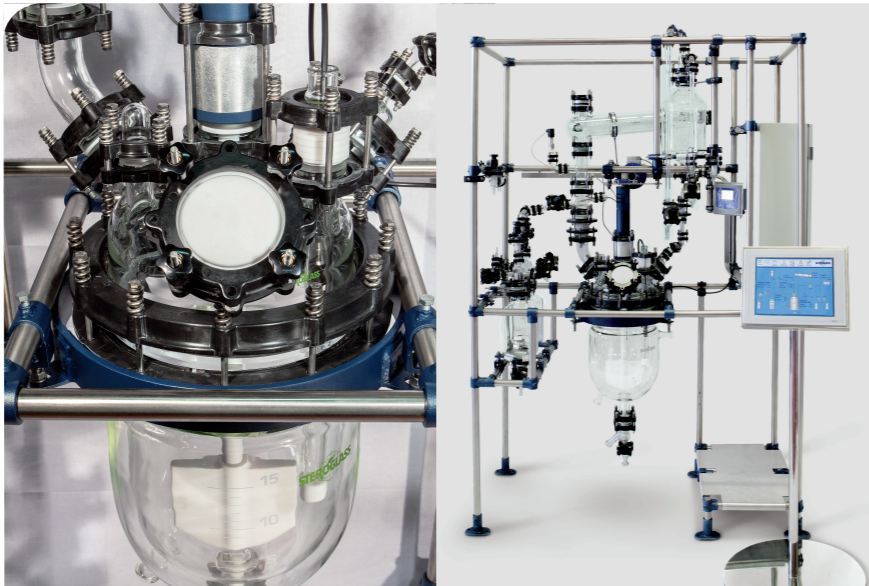
## Vessels

- Jacketed/unjacketed glass vessel
- Feeding and receiving glass vessel

- Stirring systems:
- PTFE/glass/magnetic seal
  - PTFE/metal shaft
  - Glass lined

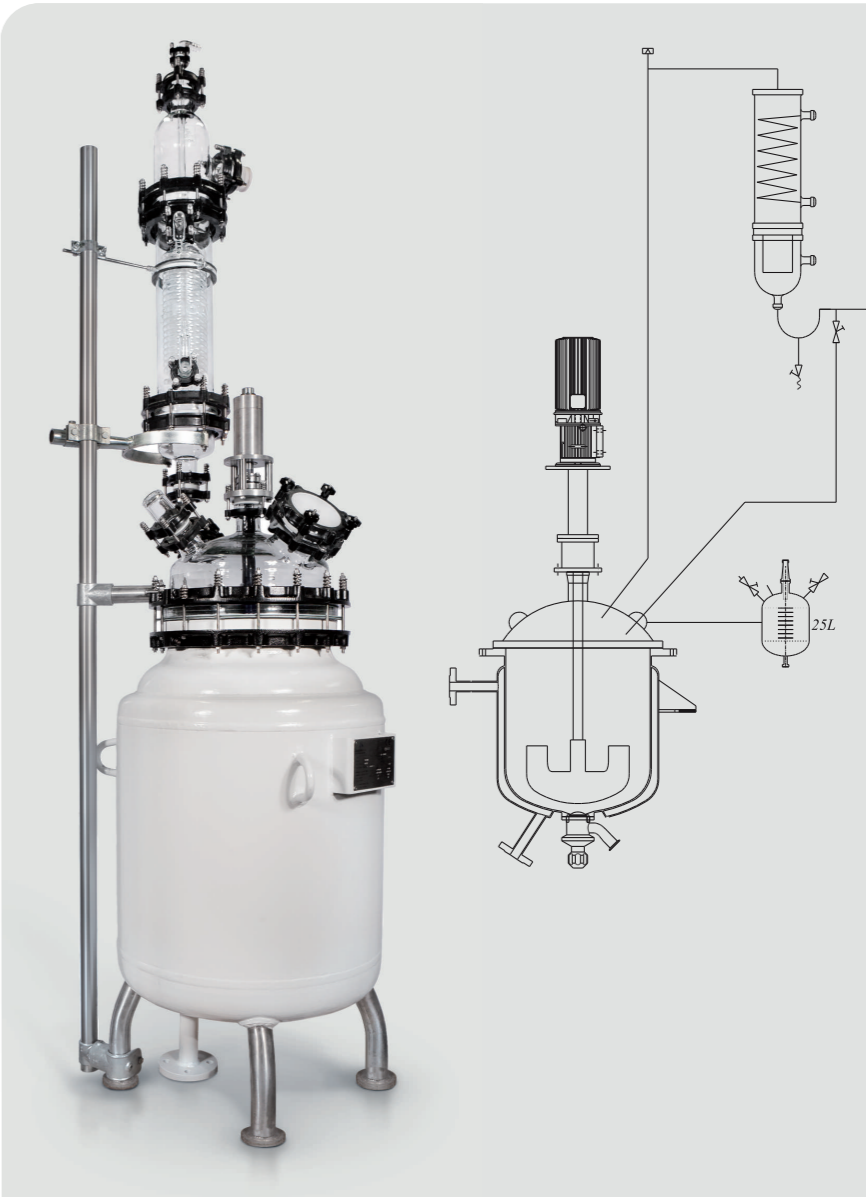
## Piping and components

- Glass piping
- Glass valves
- Couplings
- PTFE components
- Easy maintenance and service



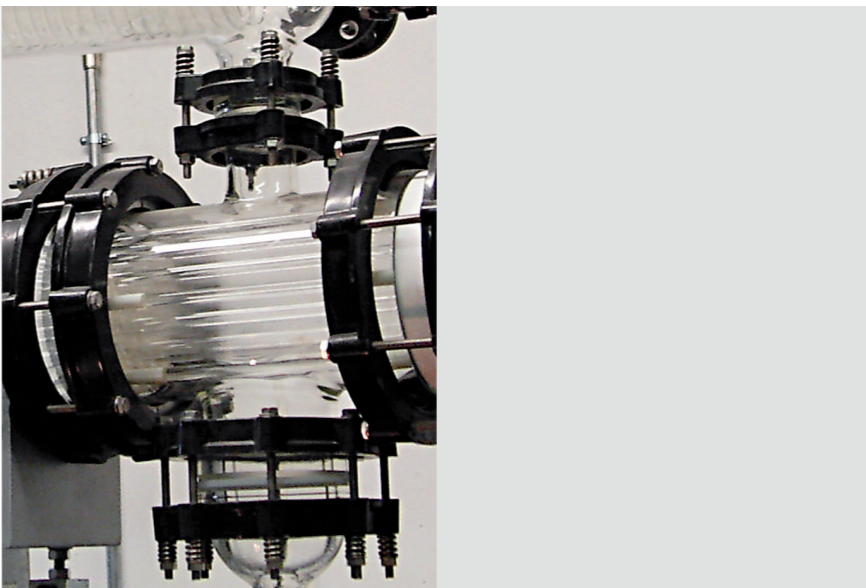
## Glass Lined Reactor

- Glass lined stirring system



## Heat Exchangers

- Glass coils
- Glass/glass lined/stainless steel shell and tube
- Glass/SIC tubes





## Technical Assistance

### Industrial plants service:

#### INSTALLATION AND MAINTENANCE

For over 50 years Steroglass® has established itself on the Italian and worldwide market reaching the highest professional standards in production and technical assistance for industrial plants.

#### Service:

##### BOROSILICATE PILOT PLANTS

- Installation and testing
- Ordinary maintenance
- Changes / revamping
- Repairs / replacements
- Customized maintenance contracts
- Ordinary maintenance contracts

##### HEAT EXCHANGERS

- Dismantling and full recovery
- Testing and tightening by torque wrench
- Pipe cleaning