

PHARMA-CHEM FOOD&BEVERAGE OENOLOGY



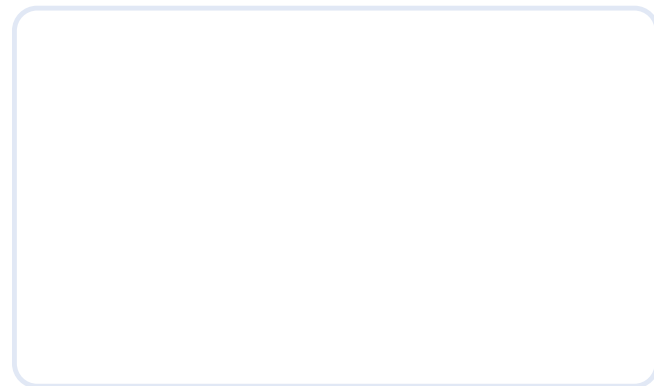
COMPANY WITH
QUALITY SYSTEM
CERTIFIED BY DNV
ISO 9001

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progetto grafico M&P

PHARMA-CHEM
FOOD&BEVERAGE
OENOLOGY



PRODUCT
OVERVIEW

O U R M I S S I O N



S C I E N T I F I C I N N O V A T I O N

60 years ago **Steroglass®** was a small blowing glass company which has grown into a world-leading manufacturer and supplier of highly innovative borosilicate lab equipment, industrial plants for chemical and pharmaceutical applications, high technological instruments such as rotary evaporators as well as automated titrators, multiparametric analyzers and aW detectors for food & beverage.

Research and innovation are the heart of our business. It is not only about offering the best possible solutions, it's about turning our expertise and know-how into new processes aimed to meet all customer requirements.

We want to give a significant contribution to people and the environment by providing safe, reliable and innovative solutions that fully respect our planet.

Added value - **Steroglass®** is a family-owned company with the whole family always present and active in order to ensure high-quality standards and encourage a friendly and long-lasting partnership with customers, suppliers and distributors.



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PHARMA-CHEM

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PHARMA-CHEM



**PRODUCT
OVERVIEW**

DISTILLATION AND EVAPORATION



STRIKE[®] 300

Rotary Evaporator

STRIKE[®] 300 is a compact safety rotary evaporator designed to obtain a fully safe instrument and performance optimization. The exclusive Steroglass[®] sealing system allows perfect vacuum-tight, self-lubrication and anti-corrosion seal. The microprocessor equipped with an LCD interface and touch screen can be multi-programmed so that all the parameters can be checked and modified. STRIKE[®] 300 is provided with GLP system. Glassware: slinting or vertical; standard or plastic-coated. Maintenance free, safe and extremely efficient.



STRIKE[®] 20

Industrial Rotary Evaporator

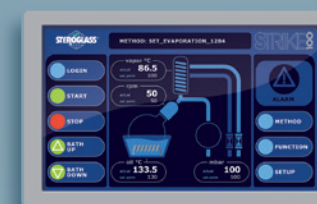
STRIKE[®] 100

Industrial Rotary Evaporator

STRIKE 20 - 20lt,
STRIKE 100 - 50, 100lt
ROTARY EVAPORATORS

STRIKE[®] 20 & 100 are large-capacity rotary evaporators designed for industrial plants. They meet all the process needs thanks to borosilicate glass and PTFE, permitting aggressive substances treatment. The unit runs under vacuum or atmosphere conditions. The rotation of the evaporations flask in the thermostatic bath results in a forced convection and homogenous distribution of the product, thus preventing sedimentation. The flask also ensures high evaporating exchange surface. The sealing system enables perfect vacuum tight. No maintenance needed. STRIKE[®] 100 is equipped with a 7" graphic display.

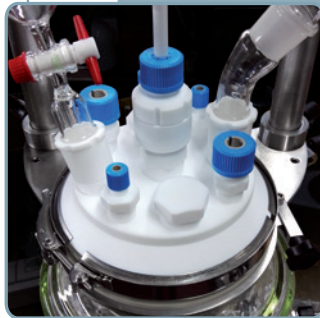
STRIKE[®] 100 ATEX version is in compliance with the ATEX European Directives that regulate explosion-proof manufacturing materials. STRIKE[®] 100 ATEX is T3 or T4 certificated. T3 or T4 protection level can be chosen according to the applications needed. Models are available with descending or reflux plastic coated glassware.



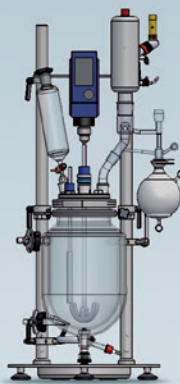
REACTION SYSTEMS



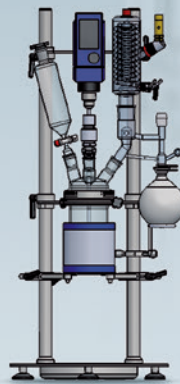
Innovative reaction system designed with the same materials used in chemical processes and suitable for laboratory purposes. Ideal for both scale-down and scale-up processes, it ensures a fast investment return.



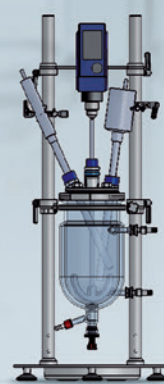
- Application fields:**
- Crystallization study
 - Photochemistry
 - Hydrolysis
 - Precipitation
 - Mixer Reaction
 - Constant pH reaction
 - Catalytic reaction
 - Enzymatic reaction
 - Under reflux reaction
 - Solvent recovery
 - Synthesis with filtration
 - Nanoparticle synthesis
 - Chemical synthesis
 - Biogas from biomass
 - Bioreaction
 - Carboxylation
 - Dissolution / formulation
 - Fractionated distillation
 - Distillation
 - Dean Stark distillation
 - Vacuum distillation
 - Emulsion
 - Esterification
 - Vacuum evaporation



Vacuum distillation with reflux head



Enzymatic digestion reactor with automatic pH adjustment



Lab reactor with bottom filter for crystallization studies



Mixer Reactor for formulation studies

GLASS-BLOWN APPARATUS FOR LABORATORY



Steroglass® is renowned worldwide for its highly innovative technology in glassblown scientific equipment for chemical laboratories. Thanks to our R&D and skilled glassblowers, we are able to build any type of customized apparatus meeting any specific needs. Our commitment to quality and customer care is our priority in order to provide our Clients with customized technical services. We specialise in corrosion resistant complete systems and special borosilicate glass, quartz and metal-glass welding plants.

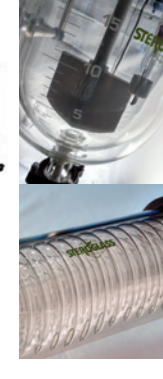
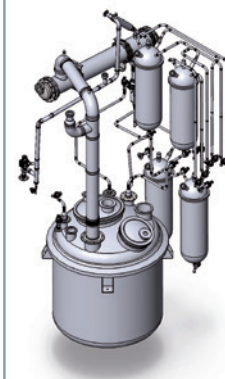
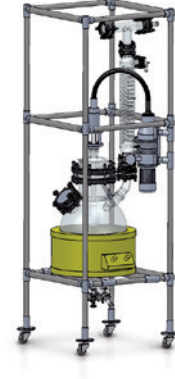
Our systems are engineered and manufactured to the state-of-the-art standards and can be fully customized.

ISO Certified bottles



TAILORED SOLUTIONS

GLASS REACTORS



LAB REACTOR

EASYCHEM REACTOR

PHARMA COMPACT REACTOR

PLUS PILOT REACTOR

CUSTOM PILOT REACTOR

SPHERICAL PILOT REACTOR

GLASS LINED REACTOR

LARGE SCALE CUSTOM ENGINEERING SOLUTIONS

ACCESSORIES AND SPARE PARTS

FILTER REACTOR

CUSTOMIZED GLASS MIXER REACTOR

GAS SCRUBBER

300 ml - 7 lt
-60° [-90°]...+180°C
-1... +0.5 bar

10-30 lt
-60° [-90°]...+180°C
-1... +0.5 bar

10-50 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

PROCESS

FILTRATION PURIFICATION

WASTE HANDLING



FOOD & BEVERAGE OENOLOGY



PRODUCT OVERVIEW

WATER ACTIVITY METER



WATER ACTIVITY METER
Waterlab is the state-of-the-art water activity (aW) meter and is essential to ensure quality of ingredients in the food, pharmaceutical and cosmetic industries. Waterlab is best to increase product shelf-life analyzing microbial development in order to prevent deterioration risks.

- Accurate and repeatable analyses in 5 minutes
- Dew point sensor
- Accuracy: $\pm 0,003$ aW
- In compliance with ISO 18787:2017 standards



AUTOMATIC TITRATOR



FLASH
AUTOMATIC TITRATOR



Flash Automatic Titrator
Designed to simply and precisely carry out a wide range of potentiometric titrations.

Up to two automatic burettes for titrant delivery and three peristaltic pumps can be installed. Automatic analyses are made easy and fast. Both a single analysis stand and 16, 20 or 35 position autosamplers can be connected to Flash.

Designed to optimize sample auto-level procedure thus speeding up the whole preparation. The new optional degassing system ensures a fully automatic procedure with no external sample pre-treatment needed.

Applications:
Flash titrator can be used to detect several parameters in most F&B applications such as wine, fruit juice and puree, milk and dairy products, edible oils, etc..

Main analyses:
pH, Titrable acidity, SO_2 , Chloride, Ascorbic Acid, Peroxide, etc..



AUTOMATIC MULTI-PARAMETRIC ANALYZERS



Hyperlab Plus Automatic Analyzer

The most popular automatic analyzer for food and wine:

- 180 analyses / hour
- 60 positions
- 30 positions with refrigerated tray
- Anti-crash glass ceramic needle equipped with capacitive level sensor
- 8-cycles washing station.

Hyperlab Basic Automatic Analyzer

Solid and resistant designed for high productivity:

- 150 analyses / hour
- 46 positions
- 26 positions with insulated reagent plate
- Stainless-steel needle equipped with capacitive level sensor and anti-breakage locking system
- 6-cycle washing station.

Hyperlab Smart Automatic Analyzer

for the best enzymatic analysis:

- 140 analyses/hour
- Insulated reagent plate
- 2 versions:
 - 10 positions for samples and 20 positions for reagents,
 - 20 positions for samples and 10 positions for reagents
- Small size: 38x60x35 cm
- Stainless-steel needle equipped with capacitive level sensor and anti-breakage locking system
- 4 reaction segments, each with 24 disposable cuvettes
- Maintenance-free.



ENZYMATIC ANALYSES



Several enzymatic methods were approved and validated by international organizations such as:

- ISO (International Standardization Organization)
- OIV (International Organization of Vine and Wine)
- AOAC (American Association of Analytical Chemists)
- IFU (International Federation of Fruit Juice Producers)
- IDF (International Dairy Federation)
- EBC (European Brewery Convention)

STEROGLASS® offers a number of solutions that meet any F&B laboratory needs, such as:

- Universal enzymatic and colorimetric test kits;
- Automatic and semi-automatic analyzers.

Enzymatic and colorimetric kits save time by increasing control effectiveness and analytical safety.

- Liquid and ready-to-use
- Accurate and repeatable data
- Fast analyses, especially if used with automatic analyzers such as Hyperlab instruments
- High specificity in determination of various analytes
- Low analysis cost
- Long shelf-life (about 24 months)
- Separate and multi-parametric standards use.



Main parameters:

ORGANIC ACIDS

- ACETIC
- ASCORBIC
- CITRIC AND ISOCITRIC
- GLUCONIC
- D & L LACTIC
- D & L MALIC
- PYRUVIC
- TARTARIC

SUGARS

- GLUCOSE
- FRUCTOSE
- SUCROSE

IONS AND METALS

- CALCIUM
- IRON
- MAGNESIUM
- POTASSIUM • COPPER

PHENOLIC COMPOUNDS

- ANTHOCYANINS
- CATECHINS
- POLYPHENOLS

OTHER COMPOUNDS

- AMINO AND AMMONIACAL NITROGEN (RAN)
- CHLORIDES
- COLOUR (WINE)
- ETHANOL
- GLYCERIN
- FREE AND TOTAL SULFUR DIOXIDE

AUTOMATIC ANALYZER



ONE FOOD&BEVERAGES ANALYZER

- About 60 pre-loaded methods, recommended with Steroglass enzymatic kits
- User-friendly software thanks to a step-by-step guide
- A 9-position well for incubation reading cuvettes, temperature range 25°C...45°C
- Results reading of both absorbance and concentration on display screen can be printed by means of an integrated printer
- Reagent blank and calibration of methods can be saved.

ONE analyzer is has been designed to perform a number of enzymatic analyses in the food & beverage industries. Every step of the whole production is accurately controlled. One comes with a wide range of methods which provide a simple and intuitive interface by means of a graphic display that guides user in the analysis being run.



TARTARIC STABILITY ANALYZER



EASYCHECK

Easy Check is an automatic system that measures tartaric and calcium stability in wine. It is ultra-compact and requires only power for operations and sample cooling. Easy-to-use, it ensures fast and repeatable stability measurements. Analytical reports are automatically saved in the database and can be exported to a PC via wi-fi.



STEREOLAB

S E R V I C E



L A C I N Z H C H

**Certificated technical assistance:
our experience to serve you!**

- Technical and analytical consultancy
- Technical assistance agreements
- Service and calibration

Steroglass® has long been providing technical assistance to its whole range of manufacturing products. Our long-lasting experience combined with regular updating trainings make it possible for our team to develop the know-how needed for a turn-key set-up and maintenance.

Application fields

Steroglass's innovation-based solutions ensure instrument accuracy in compliance with all international directives.

