progetto grafico e fotoritocco MARINI

stampa Tipolito Properzio foto Roberto Vaccai

STEROVAC_04_06

STEROGLASS®

Via Romano di Sopra, 2/C
S.Martino in Campo - PG
Tel. +39 075-609091
Fax +39 075-6090950
internet: www.steroglass.it
e-mail: info@steroglass.it

SISTEMA QUALITÀ CERTIFICATO UNI EN ISO 9001/2000 SINCERT DNV

Vacuum Systems

STEROVAC

CAN BE CONNECTED TO ANY ROTARY EVAPORATOR

Vacuum Systems

STEROVAC

CAN BE CONNECTED TO ANY ROTARY EVAPORATOR

The ideal solution for rotary evaporators

BELIEF IN SAFETY

STEROGLASS®

STEROVAC is Steroglass's newest project, comprising an instrument pack designed and manufactured to produce and control laboratory vacuums in safety.

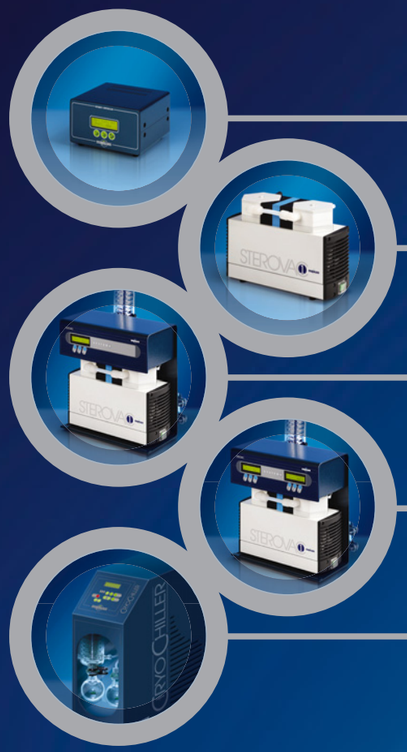
Sterovac meets all operating requirements due to the wide choice of configurations available, and the possibility to purchase instruments singularly that can be used when needed.

CAN BE CONNECTED TO ANY ROTARY EVAPORATOR

STEROVAC Vacuum Systems

BELIEF IN SAFETY

The range includes:



STEROVAC
Electronic vacuum control device

STEROVAC 1
Vacuum pump

STEROVAC SYSTEM 2
Pre-configured vacuum pump system + 1 control unit + 2 traps

STEROVAC SYSTEM 3
Pre-configured vacuum pump system + 2 control units + 2 traps

CRYOCHILLER
Ecological refrigeration system with controlled vacuum

EVAPORATE LABORATORY SOVENTS IN MAXIMUM SAFETY

Health and safety in the workplace are undoubtedly one of the foundations of international social policies.
Numerous official documents have been written to help achieve the objective of progressive improvement in workplace well-being, with one of the most important being Law 626 and subsequent modifications. This document focuses on accident reduction through the use of instruments with specific features, and work-related disease prevention by limiting the use of dangerous substances (when possible) or by minimizing contact in the workplace and with workers.
A common aim of the numerous publications is to define good practice, make it known and then develop it to the point where working conditions favour greater worker safety and health. To instil a culture of prevention and to change attitudes, it is necessary to improve understanding of risk for the people directly involved, through education, by making them aware and helping them anticipate new risks. Consequently, the promotion of prevention must start in the first phase of instruction and proceed with regular continuing education adapted to everyday conditions. It is also essential to integrate health and workplace safety into company management and in other activities that lead to a systematic approach to workplace well-being. It is therefore necessary to consider changes occurring in the world of work.
Health and safety must be improved through creation of a healthy and safe workplace. The culture of risk prevention must be consolidated by demonstrating that effective workplace safety and health policies are a strategic factor in competition and that, in contrast, absence of these policies brings added costs.

Steroglass believes in safety and the most tangible demonstration of this is the STEROVAC instrument range

STEROVAC is the clear and tangible answer to safety and defence of health and the workplace

Toxic effects of the most common Volatile Organic Compounds

DIETHYL ETHER: is recognised as a systemic toxin of average entity, either due to acute overexposure or in consideration of its long term effects. When inhaled it causes respiratory tract irritation, coughing, dyspnoea, and pulmonary oedema. It also acts on the central nervous system causing headaches, general depression, weakness, drowsiness, possible memory loss and respiratory difficulties. It has been known to cause changes to hepatic function.

TRICHLORMETHANE: when absorbed, chloroform damages hollow organs such as liver, heart and kidneys. Its solubility in fatty substances, particularly on inhalation, ingestion or absorption through the skin, together with mild narcosis stupor, is similar to a state of inebriation, and it is no longer used as an anaesthetic since its toxicity has been discovered. Continuous exposure leads to a lowering of blood pressure and respiratory depression. Greater than 2% concentrations can lead to respiratory block and cardiac death. 5000 ppm for a short time can interfere with time and space orientation with tendency to falls; 1000 ppm in 5 to 10 mins can lead to depression and uneasiness. Suspected carcinogenic.

DICHLORMETHANE: Dichloromethane vapour in great quantities can act on the nervous system and cause illness, fainting and, in extreme cases, death. The vapour can decompose on electrical elements and naked flames producing hydrochloric acid gas. Dichloromethane metabolises with carbon monoxide and causes (especially in smokers) arrhythmia and cardiac stress.

STEROGLASS®

BELIEF IN SAFETY

STEROVAC

Electronic vacuum controller

CAN BE CONNECTED TO ANY ROTARY EVAPORATOR

STEROVAC is an electronic vacuum controller for rotary evaporators and other devices.
It is light, compact and extremely easy to use.
STEROVAC controls the associated vacuum pump and allows the user to set desired mbar pressure with the simple control panel.

Specifications:

- Microprocessor digital vacuum control
- Vacuum setting range from 999 mbar to 2 mbar
- Delta pressure from 1 mbar to 50 mbar
- LCD read outs
- Power supply: 22 V; 50 – 60 hz; CE standard
- Dimensions: (LxHxW) 165x90x150mm
- Weight: 2 kgs

Why use Sterovac and Sterovac 1?

To safely and efficiently connect a vacuum system to a rotary evaporator it is first of all necessary to connect it to a PTFE diaphragm pump, such as the STEROVAC 1, and to avoid water wastage and solvent dispersion in the workplace (water pump). The PTFE diaphragm (highly solvent resistant) guarantees the pump against wear. To optimise the whole process it is necessary to connect a electronic vacuum controller, such as STEROVAC, to the pump to achieve correct vacuum in the system for all types of evaporation.
Commonly used solvents have different boiling points and vacuum evaporation levels. If the vacuum is not properly controlled there exists a risk of the evaporation being either too rapid or too slow. This leads to reduced recuperation of vapours, which are then dispersed in the workplace to jeopardise processes and undermine worker and workplace health.

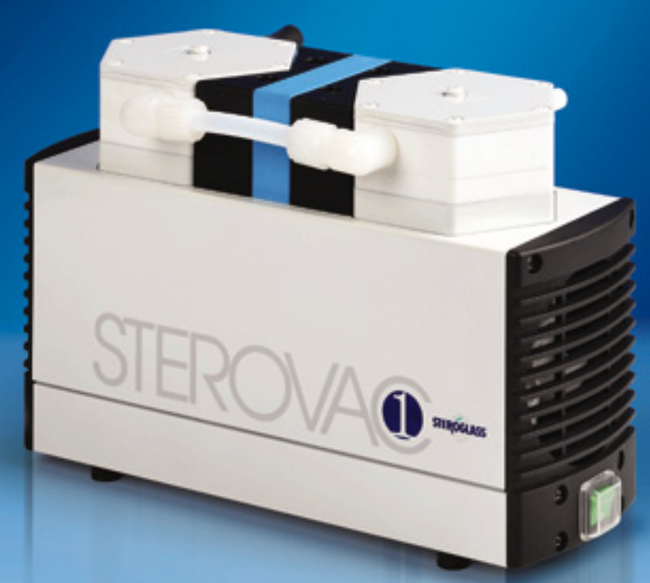
BELIEF IN SAFETY

STEROVAC

1

PTFE Diaphragm Vacuum Pump

CAN BE CONNECTED TO ANY ROTARY EVAPORATOR



STEROVAC 1 is a PTFE diaphragm vacuum pump.
It is ideal for connection to a rotary evaporator thanks to its internal composition and performance.
If it is connected to the Sterovac vacuum controller it gives optimal performance and durability.

Specifications:

- Cylinder: PVDF
- Diaphragm: PTFE
- Valves: FFPM
- Maximum delivery: 20 nL/min
- Final vacuum: 8 mbar
- Power supply: 22 V/ 50 hz
- Rating: 120 W
- Dimensions: (LxHxW) 312x207x154mm
- Weight: 9.3 kgs

STEROGLASS®

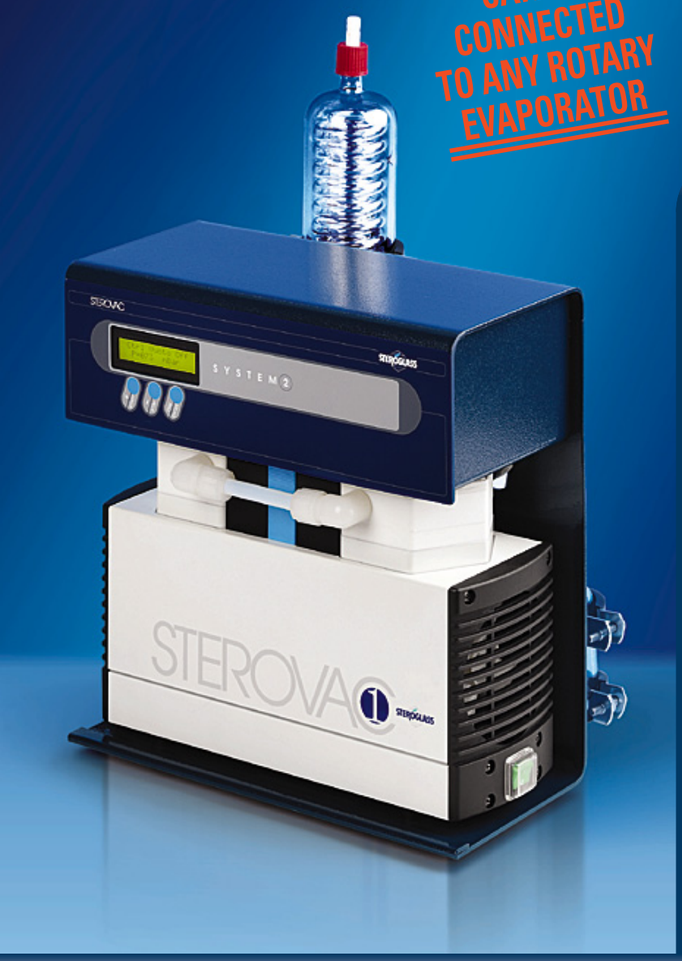
BELIEF IN SAFETY

STEROVAC SYSTEM 2

Pre-configured system consisting of:
STEROVAC + STEROVAC 1
+ liquid/vapour
reduction traps

STEROVAC SYSTEM 2 combines the Sterovac 1 vacuum pump, the Sterovac electronic vacuum controller, a pump-saving trap to reduce froth and liquids (Woulff flask) and a final post-condenser for reduction and recovery of residual vapours.

CAN BE CONNECTED TO ANY ROTARY EVAPORATOR



Why use Sterovac System 2?

STEROVAC SYSTEM 2
is a fully-developed system for the control and safety of evaporation processes.
Thanks to this system it is possible to not only produce a vacuum (Sterovac 1) and control it (Sterovac Controller), but also safeguard the pump against solvent splashes and froth (first trap), and above all to safeguard the workplace against residual vapours that could leak out notwithstanding the electronic control. The latter safety aspect is guaranteed by a post-condenser coil positioned after the pump and adequately cooled by an external source, which will reduce most of the residual solvent not trapped by the rotary evaporator.

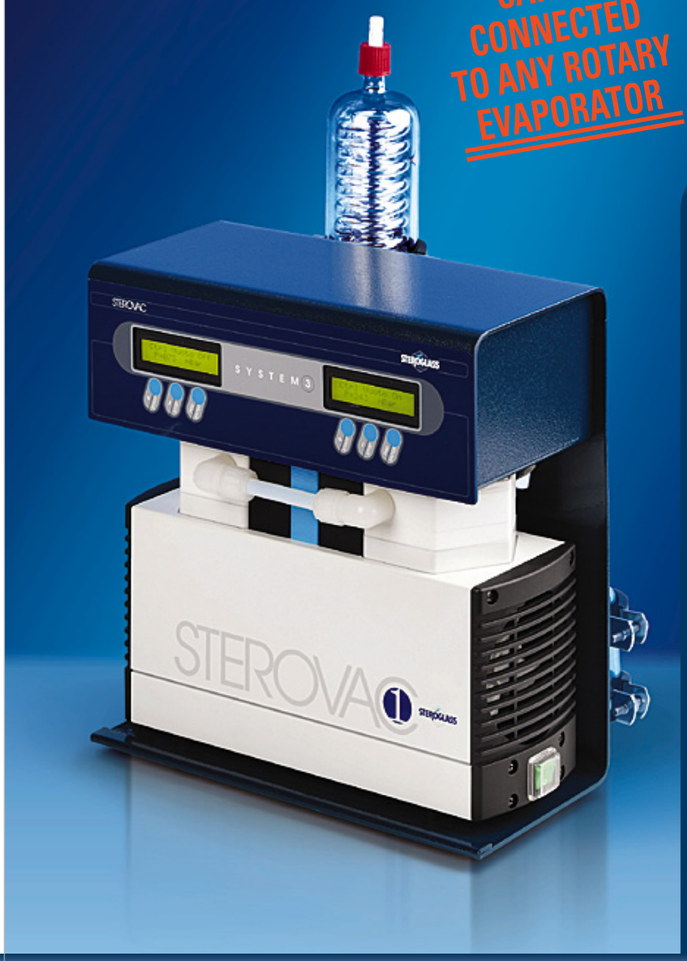
BELIEF IN SAFETY

STEROVAC SYSTEM 3

Pre-configured system consisting of:
2 STEROVAC + STEROVAC 1
+ liquid/vapour
reduction traps

The **STEROVAC SYSTEM 3** has all the capabilities of Sterovac 2 and makes the most of them by the addition of a second Sterovac Vacuum Controller.

CAN BE CONNECTED TO ANY ROTARY EVAPORATOR



Why use Sterovac System 3?

STEROVAC SYSTEM 3
is the ideal solution for differentiated evaporation.
It offers all the safety features and process optimization of Sterovac 2, but the simultaneous connection of the 2 rotary evaporators allows the user independent and differentiated vacuum control thanks to the double vacuum controller (2 Sterovac). Therefore it is ideal for anyone needing to do two operations at the same time.

STEROGLASS®

BELIEF IN SAFETY

CRYOCHILLER

Controlled vacuum refrigeration system: 4 instruments in one

CAN BE CONNECTED TO ANY ROTARY EVAPORATOR

The **CRYOCHILLER** system is the ideal solution for evaporation.
It is the only instrument on the market that has 4 fundamental components in just one element, giving accurate evaporation:

- **Closed circuit cooling system**
- **Vacuum pump**
- **Electronic vacuum controller**
- **System of traps**

Why use CryoChiller?

CRYOCHILLER has everything a rotary evaporator should have to work safely and efficiently.
As with Sterovac 2 and 3: the pump, vacuum controller and the liquid and vapour reduction traps guarantee the vacuum in the system is always optimal and appropriate to the current process.
At the same time energy saving is guaranteed, together with saving of water (no water pump), safety (maximum vapour reduction) and high solvent recuperation.
CRYOCHILLER is also cryostatic: ethylen glycol cools the evaporator coil and enables constant and extremely low temperatures, but principally it avoids use of water utilities thereby considerably reducing costs and wastage.

Specification:

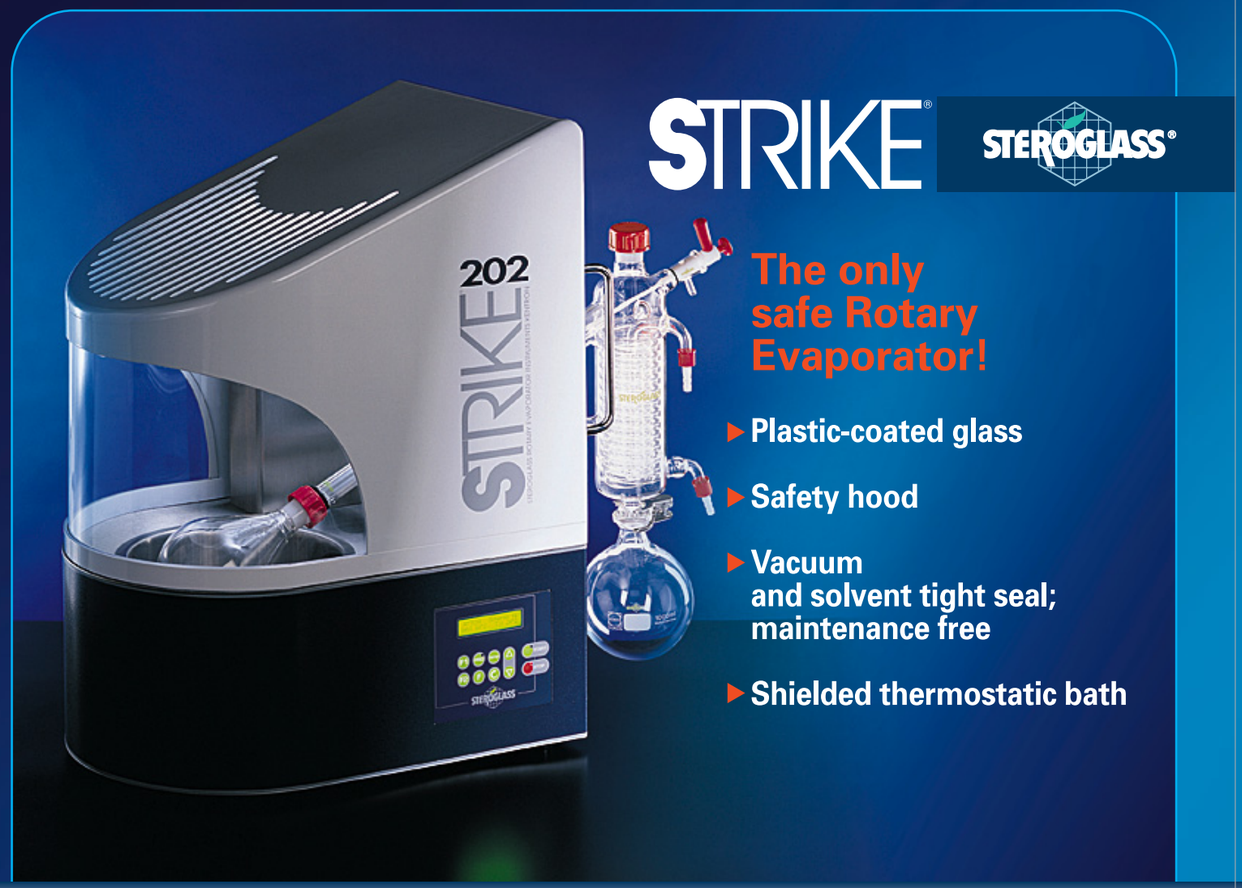
- AISI 316 stainless steel, solvent resistant chassis
- Polycarbonate observation window
- Front door for inspection and glass replacement
- Digital display panel for temperature readings and settings from -10/+30°C, within +/- 1°C accuracy
- Ideal working temperature (from +3 to +7°C)
- Peltier cooling system coupled with a sealed 3-litre stainless steel tank filled with glycol
- Dual-action pump for better coolant circulation in the evaporator and in the condenser positioned before the pump (10 L/min delivery)
- Anticorrosive vacuum pump with PTFE diaphragms, maximum vacuum of 8 or 2 mbar
- Accurate electronic system for reading and controlling vacuum
- 1 pump-saver borsilicate glass collection flask, 250 ml
- 250 ml dual-coil borsilicate glass condenser
- Overall dimensions: height 600 mm, width 250 mm, depth 450 mm

STEROGLASS®

CAN BE CONNECTED TO ANY ROTARY EVAPORATOR

STEROVAC Vacuum Systems

BELIEF IN SAFETY



STRIKE® STEROGLASS®

The only safe Rotary Evaporator!

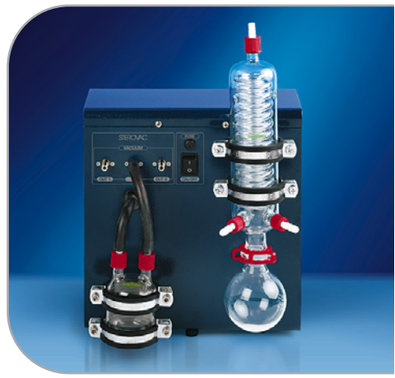
- Plastic-coated glass
- Safety hood
- Vacuum and solvent tight seal; maintenance free
- Shielded thermostatic bath

FOR ORDERS:

model name	code
STEROVAC	SQFW 039583
STEROVAC 1	SQNM 046462
STEROVAC SYSTEM 2	SQNM 047902
STEROVAC SYSTEM 3	SQNM 047903
CRYOCHILLER	SQCT 033109

Sterovac System 2 and 3 replacement and spare parts

model name	code
Glass condenser	SQNO 048110
Duran glass rounded-base ball – 250 ml SF 35/29	SQUA 038473
Red polyacetate clamp	FLMU 016720
Woulff glass flask – 200 ml	SQNO 048113
Norprene black tube set	SQNO 048114



CryoChiller replacement and spare parts

model name	code
Collection flask – 250 ml	SQUA 015797
Clamp	FLMM 016694
Liquid coolant, 5 L	SQPG 035456
Replacement liquid coolant	SQFY 037082
Vacuum pump	IMNM 017501
Ball-point adaptor	SQSO 037115
PTFE seals	MEJQ 004039
Wheels	VAJS 035133
Vacuum hose	AEHA 024258
Liquid coolant tube	AGOY 024214
Insulation for liquid coolant tube	VAJS 035372
Expansion system to connect 2 rotary evaporators	SQCV 045825

STEROGLASS®