



GROUP

BARCHEMICALS

THE PERFECT FORMULA

**GENERAL CATALOGUE
BIO SWIMMING POOLS AND BIO LAKES
2021/2022-1**

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BARCHEMICALS

ENGLISH 

This catalog cancels all previous ones and will remain valid until the replacement - even partially
- with new versions.

Issue date: November 2021



GROUP
BARCHEMICALS[®]
THE PERFECT FORMULA

This Brochure is the result of more than thirty years of experience by a Large Italian Group: **Barchemicals Group**.

Barchemicals Group is an all-Italian business currently consisting of 3 companies which share projects, visions and values, including client and collaborator Safety and the protection and respect for Environmental Resources.

It works in the primary, drinking, and **swimming pool** water treatment industry, both in Italy and abroad, stretching 360° across every managerial problem with particular focus on the disinfection and water treatment industry, environmental disinfection and sanitation, control and automation.

Founded and directed by Dr Corrado Barani, the Group holds multiple patents and invests heavily in Research and Innovation resources, with a particular focus on developing aspects of **Biosafety** and ensuring the health of customers and operators

Barchemicals is the parent company; it manufactures chemical products for the treatment and conditioning of every kind of water. Its thirty year experience is condensed into 4 product ranges: Swimming pools, Cleansers, Ti line and the groundbreaking "**I Sali della Vita**"[®] line of products. Thanks to an innovative and efficient productive system, it designs and manufactures exclusively high quality, reliable chemical specialities. Rigorously "Made in Italy", Barchemicals products meet strict quality criteria and are developed in compliance with a series of research and safety tests.

The **Barchemicals Bio Lakes and Bio Swimming Pools** was designed specifically for key players in the water treatment industry and professional swimming pools maintenance services and represents a compendium of our technologies and expertise developed to meet the requirements of our professional customer

Reliability, Safety and Innovation are the 3 values which define their R&D work, providing state of the art solutions and products:

- **BIO** treatment systems
- Double wavelength **UV-C Nanotech** treatment systems
- Disinfection systems
- BioVitrum excellence filter media
- Dosage systems - primarily the revolutionary diluters in the **DDS** series

This vision arises from the answer to a simple question: what does today's consumer want? Quality, service, promptness, design, efficiency, innovation and the right quality/price ratio; all this while carefully focusing on safety

Barchemicals Group aims to meet these needs and launch them again, to develop a new Environment culture focused on Innovation and Safety highlighting and exulting all the strong points matured by the Group.



www.barchemicalsgroup.it

Follow Barchemicals Group on:  

BARCHEMICALS GROUP

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BIO SAFETY

Barchemicals believes in Biosafety. Barchemicals introduces the basic concept of Biosafety to the swimming pool industry.

The swimming pool industry will no longer be approached in separate and specialised sectors, but holistically, focusing on all aspects of safety.

We at Barchemicals will go beyond swimming pool water treatment and the maintenance of related equipment to include the design, implementation and maintenance of the surrounding environment (air, water, edges, reception, etc.). We will not stop at ensuring the health and safety of swimmers but also of anyone who operates in swimming pool environments.

Biosafety is no longer limited to ensuring the safety of swimming facilities, but it also includes their environmental impact, e.g. by preventing the contamination of surrounding areas with pollutants in waste water or with airborne diseases (i.e. Legionella) through cooling towers.

Biosafety also means preventing issues that can cause diseases in current or future users of swimming facilities, whether in the short or long term. For this reason, the Barchemicals' R&D department, in collaboration with Universities and private or public Research Institutes, funds and supports research into innovative materials, less polluting and more effective.

In particular, Barchemicals focuses on the development of biocides, effective at low doses, less harmful to users' health and less likely to become less effective due to bacteria resistance over time.

Barchemicals is also exploring the design of new self-sterilising filtering materials that can reduce toxic pollutants in the swimming pool water or in sanitary or potable water, as well as conducting research on ways to reduce airborne pollutants in swimming facilities.

Barchemicals supports the research and development of new water treatment systems, but also promotes products and processes that can help people live healthier and happier lives, now and in the future.

Barchemicals is aware of its significant social role, as in the past 35 years it has created jobs and improved the local economy by employing dozens of people and training many young employees at its production and administrative facilities.

Leveraging the opportunities of a competitive free market, Barchemicals has contributed to raising the quality of water treatment systems at swimming pools in Italy and abroad.

Commitment to research and innovation and the promotion of people's health and well-being are core values that make of Barchemicals an industry leader at the cutting edge of technology.

Biosafety is Barchemicals' latest target to ensure the health and well-being of the community.

WHAT DOES COMMITMENT TO BIOSAFETY MEAN FOR BARCHEMICALS GROUP?

1. Firstly, obtaining the registration outside Europe of products containing biocides, included in the authorized local and European registers (BPR).
2. Obtaining the Medical and Surgical Device registration in Italy, as required by the Ministry of Health.
3. Avoiding the use of unauthorised products or of products lacking the technical specifications required by BPR.
4. Selecting suppliers based on strict ethical requirements and on the quality of raw materials.
5. Advancing R&D in collaboration with Universities and Research Institutes.
6. Promoting conferences and the continuous training of its human resources and educating its Customers.
7. Promoting R&D grants.
8. Developing new systems for water and air treatment (biomaterials, chemical-physical systems, UV, etc.)
9. Participating and organising conferences and events that promote Biosafety.
10. Expanding the areas of Biosafety application, helping the transfer of skills to different swimming pool know-how areas: potable water for human and animal use, sanitary water, industrial water, waste water, water for food use and for washing and handling food.
11. Encouraging the expansion of the Biosafety concept also to developing countries.

Castelnuovo Rangone, 29 September 2021

BARCHEMICALS GROUP
Dr. Corrado Barani

OUR PRINCIPLES



Pure water - We consider water a source of well-being, purity and vitality, which is why we are committed to "treating" water efficiently.

Design and Innovation

The concept of design and innovation is powerfully rooted in our DNA. All our products are geared towards this.

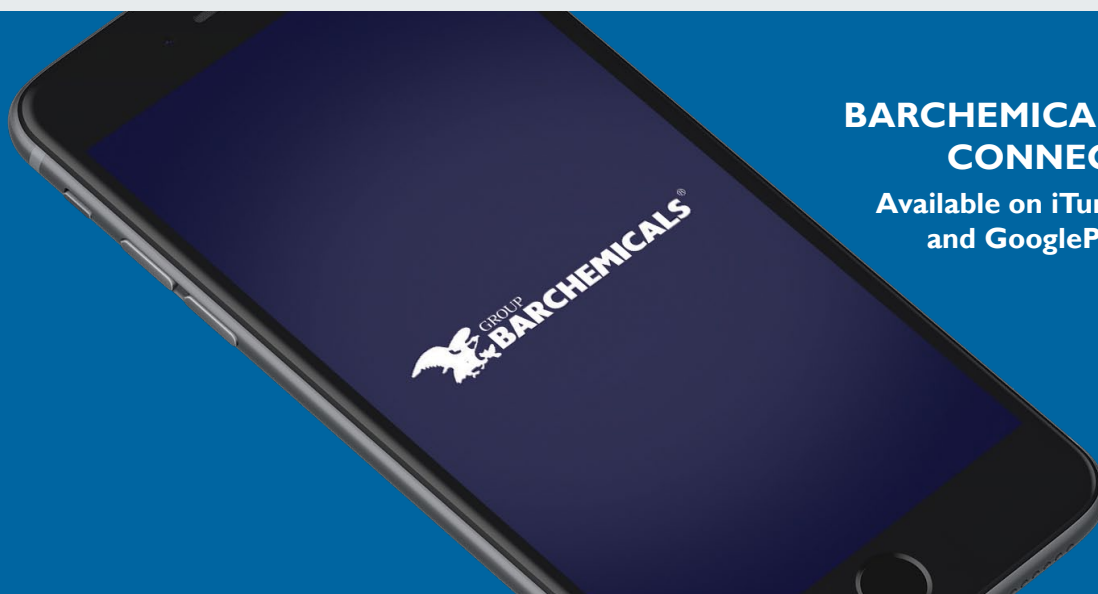


Safety - Our organisation is focused on safety, both for those who work professionally in the pool industry and users of the swimming facilities, in compliance with high quality standards.



Energy Saving - We are committed to researching and developing environmentally friendly solutions. Our priorities are wasting less water, saving energy and using alternative sources.

NEWS AND INFO



BARCHEMICALS CONNECT

Available on iTunes
and GooglePlay



BARCHEMICALS CONNECT

Connected to Barchemicals Group wherever you are.

The Barchemicals Connect app provides access to a series of information and documents at any time.

In fact you could easily flick through the most up to date versions of our catalogues, manuals and safety records.

In addition to this, if you are a client or partner, you can download and view other documents using your personal access data, such as:

- Business documents: order confirmations, invoices, etc.
- Results of your analysis
- Communications and notices from Barchemicals Group
- View and use the analysis coupons
- Manage the loyalty points and awards

Barchemicals Connect also allows you to send a request for intervention or analysis at any time.

Index

Bio Swimming Pools and Bio Lakes

Bio Swimming Pool and Bio Lake Treatment.....	page 11-16
Portable conductometer and kit	page 17
UV-C NANOTECH	page 18-19
Biovitrum.....	page 20-26
Tech Standard Filter	page 27



Alphabetical Index

A

ALGO STOP 15

B

BIO LAKE 16

BIOALG 16

BIOVITRUM 21

BIOVITRUM Ag+® 22

BIOVITRUM SFERE 27

BIOVITRUM Ti® 25

BLU LAKE 16

E

ECO ALG 15

ECO ALG PLUS 15

ECO-LIFE 14

ECO-pH 14

P

PORTABLE CONDUCTOMETER 17

PHOSPHOREMOVER 14

T

TECH STANDARD FILTER 28

U

UV-C NANOTECH 18



BIO SWIMMING POOLS AND BIO LAKES

COMPLETE LINE OF PRODUCTS

Over the last few years, people's desire to integrate with nature has increased the request for water bodies where it is possible to swim in a natural eco-system that integrates perfectly with the surrounding environment and has thus increased the demand for non-traditional "swimming pools" known as **BIO SWIMMING POOLS**. These are often confused with domestic **ornamental ponds**.

The difference between these two basins is considerable as is the use for which each one is designed, while they do both often share an ornamental aspect and this is why those who are not experts in the field, sometimes get them confused.

BIO SWIMMING POOLS

ABIO SWIMMING POOL is a water body that is waterproofed against the soil and is not chemically disinfected; it is designed for swimming that foresees only the use of organic and/or mechanical purification, excluding any other optional treatment system even physical, such as U.V. rays, for example.

In a **BIO SWIMMING POOL** however, there can be small insects and invertebrates which are tolerated and which often seek refuge on the edge of the phyto-purification area; fish or large aquatic animals are not tolerated.

The following cannot be defined as BIO SWIMMING POOLS all water bodies for swimming in that have been treated with chemical products, U.V. rays or any other disinfecting system that destroys biological life.

For the care and well-being of your Bio lake and Bio swimming pool



BIO LAKES - SWIMMING POND - OR ORNAMENTAL POND

In general terms, we are talking about a natural or artificial invasion of water that is not isolated from the ground where, as well as phyto-purifying plants, there is often large aquatic fauna like fish and aquatic birds. These, however, tend to pollute, eutrophicate and dirty the water with their faeces and urine, making it turbid and full of algae.

Often other definitions can be added to these two terms, such as natural swimming pool, swimming lake, natural swimming pool etc. These names are used to indicate structures which, due to their construction or treatment received, fall completely beyond the field of Bio swimming pools. Equally, they do not fall under the title of swimming bio lakes but are often simple ornamental structures, thus further confusing the "waters" for those who are not expert in this area.

In particular, in Italy, the lack of national legislation, a gap which is only partially filled by local legislation, has made it difficult to seriously manage these market



► demands, protecting, first and foremost, the health of swimmers.

This is not the appropriate occasion to get involved in the purists' debate on **BIO SWIMMING POOLS**, which involves the rigorous use of exclusively mechanical and biological purification to guarantee safe, and suitable conditions for swimming in for the stored water against those who, on the other hand, extend this definition, permitting, where necessary, the use of other disinfection systems to guarantee hygienic water conditions.

We need to keep our feet, however, firmly on the ground and remember that in northern countries, the average summer temperature rarely exceeds 25°C so it is relatively easy to keep the biological balance of a bio swimming pool or bio lake under control. In Mediterranean countries, the average temperature at times exceeds 30°C for several days at a time, and under such conditions it becomes extremely difficult to keep these biological balances under control without using products or technology that help nature to keep the water's parameters within limits that guarantee not only attractive, clean water that is pleasing to look at, but above all, prevents pathogen bacteria finding ideal conditions in these environments and spreading beyond certain levels thus becoming dangerous to the health of those swimming in this water.

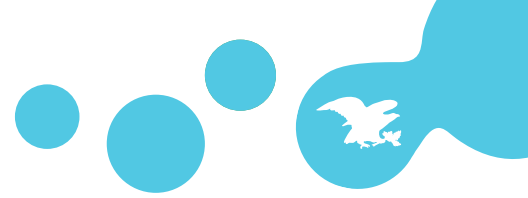
IT IS based on these considerations that the **BARCHEMICALS** laboratories have created a series of "**CHEMICALLY NATURAL**" products and a range of purifying technology which, while still respecting **NATURE** make it easy even for non-experts to look after the water in a **BIO SWIMMING POOL** or a **BIO LAKE FOR SWIMMING IN** guaranteeing the health of



the swimmers using it and simultaneously guaranteeing a **CLEAR, CRYSTALLINE** and **HEALTHY** water with maximum respect for nature and the aquatic plants and fauna.

IMPORTANT CHEMICAL, PHYSICAL AND BACTERIOLOGICAL PARAMETERS TO KEEP UNDER CONTROL FOR BIO SWIMMING POOLS AND BIO LAKES FOR SWIMMING IN

- pH
- CONDUCTIVITY
- OXYGEN
- CLARITY: immersing the "Sechi disk" in the lake's water until its appearance is clearer
- COMPLETE PHOSPHOR
- BACTERIA (bacterial typification, in particular the presence of the following species is established: Enterococcus, total Coliform bacteria and E. coli, Pseudomonas aeruginosa).

**ITALIAN LEGISLATION:****OFFICIAL BULLETIN FROM THE REGION OF LIGURIA****TABLE C - REQUIREMENTS FOR WATER STORED IN BIO SWIMMING POOLS OR BIO LAKES - GUIDELINES**

MICROBIOLOGICAL REQUIREMENTS	
E. coli	< 100 ufc/100ml
Enterococci	< 50 ufc/100ml
Pseudomonas aeruginosa	< 50 ufc/100ml
CHEMICAL-PHYSICAL REQUIREMENTS	
Oxygen saturation	Between 60 - 120%
pH	6 - 9
Transparency	At least 2m or, at a lesser depth, visibility of the bottom at the deepest point
Complete phosphor	< 0.015 mg/l
Nitrates	< 30 mg/l
Water temperature	< 24°C at a depth of thirty centimetres

In order to be able to keep the microbiological reference parameters within limits, the swimming systems with biologically treated water should not house aquatic animals and must ensure that no other kinds of animals can access them (dogs, ducks, geese, fish).

RECOMMENDED AQUATIC FLORA

water lilies, lotus, water hibiscus, iris pseudoacorus, iris ensata, Arum-lilies, Pickerel weed, Chameleon plants, ipporus vulgaris, Purple-loosestrife, Butomus, Marsh Marigold, Scirpus, Salvinia, etc..

submerged plants like Myriophyllum, Eleocharis, Callitriche, etc..

herbaceous, perennial plants such as: Lobelia cardinalis, Verbena bonariensis, Bergenia, Myscantus, Pampas grass, etc..

Barchemicals has manufactured products capable of improving the conditions of the water while fully respecting nature:

- **ECO-pH** – ready remedy against pH levels that are too high for bio lakes and bio swimming pools
- **ECO LIFE** – ready remedy in the event of hypoxia for bio lakes and bio swimming pools
- **PHOSPHOREMOVER** – prevention against algae by capturing phosphates for bio lakes and bio swimming pools
- **ECO ALG** – bio-conditioner to control algae growth in bio lakes and bio swimming pools
- **ECO ALG PLUS** – bio-conditioner to control algae growth in bio swimming pools
- **ALGO STOP** – solid bio-conditioner to control stringy algae growth in bio lakes and bio swimming pools
- **BIO ALG** – liquid bio-conditioner to control algae growth in bio lakes and bio swimming pools
- **BLU LAKE** – concentrate bio-conditioner to control algae growth in water resources free from plants and fish.
- **BIO LAKE** – lightener formula saturated solution in bio swimming pools and bio lakes.

ECO - pH

The solution against pH levels that are too high for bio lakes and bio swimming pools

Instructions for use

ECO-pH is used both to lower levels of pH that are too high (above 9) and as an immediate remedy in the event of intoxication from ammonia and a lack of CO₂.

Perfect for

Bio lakes and bio swimming pools.

Added value

ECO-pH acts rapidly to counteract the effects of an excessive amount of ammonia and brings CO₂ to plants, encouraging a more luxuriant growth. ECO-pH leaves no kind of residue in the water.

Code	Description	Package	Pieces/Box	Pallet Quantity
160410030	ECO-pH	DR 5 L	-	560 L

ECO - LIFE

The solution in the event of hypoxia for bio lakes and bio swimming pools.

Instructions for use

ECO-LIFE is used to treat acute lack of oxygen that can lead to the death of fish in bio lakes and regulate the content of oxygen in bio swimming pools. ECO-LIFE prevents the formation of harmful gases (ammonia, hydrogen sulphide) due to the decomposition of sediments at the bottom of the lake.

Perfect for

Bio lakes and bio swimming pools.

Added value

ECO-LIFE instantly provides the lake's eco-system with vital oxygen. ECO-LIFE regulates the content of oxygen in the water encouraging a correct decomposition of the mud and contributing to increasing the water's transparency.



Code	Description	Package	Pieces/Box	Pallet Quantity
160410040	ECO-LIFE	BU 5 kg	-	300 KG

PHOSPHOREMOVER

Prevention against algae by capturing phosphates for bio lakes and bio swimming pools.

Instructions for use

PHOSPHOREMOVER is used to reduce the content of phosphates in water, the main under layer for the growth of algae.

Perfect for

Bio lakes and bio swimming pools.

Added value

PHOSPHOREMOVER captures the phosphates, transforming them into an inert and insoluble mineral, apatite. PHOSPHOREMOVER reduces the content of phosphates in the water, keeping it below 0.035 ppm (level determined by an excess growth of algae).



Code	Description	Package	Pieces/Box	Pallet Quantity
056052	PHOSPHOREMOVER	DR 5 L	-	560 L

ECO ALG

Bio-conditioner to control algae growth in bio lakes and bio swimming pools.



Instructions for use

Product used to counteract the proliferation of mono-cellular green algae which makes the water turn green, cyanobacteria and stringy algae.

Perfect for

Bio lakes and bio swimming pools.

Added value

ECO ALG is a biodegradable algicide with no copper and can be used in the presence of fish.

Code	Description	Package	Pieces/Box	Pallet Quantity
160410050	ECO ALG	DR 5 L	-	560 L

ECO ALG PLUS

Bio-conditioner to control algae growth in bio swimming pools.

Instructions for use

Product used to counteract the proliferation of mono-cellular green algae, cyanobacteria and stringy algae. The increase in algae is due to an excessively high content of nutritional substances (phosphates and nitrates) or a dysfunction of the biological balance due to the presence of decomposing organic material.

Perfect for

Bio swimming pools.

Added value

ECO ALG PLUS can block and contrast the growth of algae, prolonging its effectiveness throughout the season.

Code	Description	Package	Pieces/Box	Pallet Quantity
160410060	ECO ALG PLUS	DR 5 L	-	560 L

ALGO STOP

Solid bio-conditioner to control stringy algae growth in bio lakes and bio swimming pools.

Instructions for use

ALGO STOP acts by freeing active oxygen into the water counteracting the proliferation of stringy algae and destroying the slime mould that thrives alongside it.

Perfect for

Bio lakes and bio swimming pools.

Added value

ALGO STOP improves the decomposition of mud on the bottom supplying the micro-organisms with vital oxygen; it is a completely biodegradable product and does not accumulate in aquatic organisms.



Code	Description	Package	Pieces/Box	Pallet Quantity
160410070	ALGO STOP	BU 5 kg	-	300 KG

B I O A L G

Liquid bio-conditioner to control algae growth in bio swimming pools.

Instructions for use

Product used to counteract the proliferation of mono-cellular green algae which makes the water turn green, cyanobacteria and stringy algae.

Perfect for

Bio lakes.

Added value

BIOALG reduces the growth of algae removing the visible radiation which is essential for their proliferation; it has no copper and is compatible with the aquatic organisms.

Code	Description	Package	Pieces/ Box	Pallet Quantity
220656004	BIOALG	DR 5 L	-	560 L

B L U L A K E

Concentrate bio-conditioner to control algae growth in water resources free from plants and fish.

Instructions for use

Product developed to combat the growth en masse of green unicellular algae and cyanobacteria in water resources with no plants or fish.

N.B. Do not use in the presence of plants or fish.

Perfect for

Surface fountains, water basins, waterworks.

Added value

BLU LAKE blocks the photosynthesis of the algae and prolongs its actions over a season, effectively preventing the growth of algae.

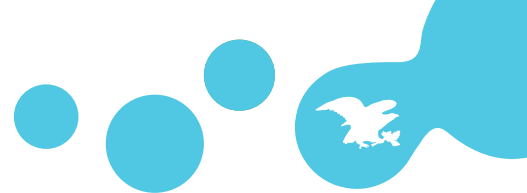
Code	Description	Package	Pieces/ Box	Pallet Quantity
160410080	BLU LAKE	DR 5 L	-	560 L

B I O L A K E

This line is aimed at enthusiasts and owners of Bio swimming pools and Bio lakes who wish to make the most of I Sali della Vita's natural properties. The product is Bio-compatible and does not change the balances of the aquatic micro flora and fauna.

Lightener formula saturated solution for bio swimming pools and bio lakes.

Code	Description	Package	Pieces/ Box	Pallet Quantity
220650008	BIO LAKE	DR 10 L	-	600 I



PORTABLE CONDUCTOMETER

Measurement and analysis instrument

IP67 waterproof portable conductivity meter.
With long lasting microprocessor and interchangeable sensor.
Wide, easy-to-read display.
Automatic calibration on 2 points.
Automatic power off and reading-stop.
Automatic compensation of the temperature.
Double scale.

Code	Description
440402752	PORTABLE CONDUCTOMETER EC TESTER LOW/HIGH DUAL SCALE CONDUCTIVITY METER

Code	Description
05040216	BARCHEMICALS pH BOILER 1-11 KIT
05040215	BARCHEMICALS NITRATES KIT
05040213	BARCHEMICALS PHOSPHATES KIT 1-20 P

UV - C NANOTECH LINE

Sterilisers via UV lamp

NEW !



SEA WATER OZONE



SEA WATER OZONE PLUS

The main characteristic of the UV-C NANOTECH Line is to work directly on two wave lengths:

Wave length of 185 nanometres, able to destroy organic and halo-derivative compounds that are a health hazard, such as: Chloroamines and THM (trihalomethanes) and other derivative compounds of suspected toxicity for human health.

Wave length of 253.7 nanometres capable of killing bacteria and viruses thereby disinfecting the water.

The UV-C NANOTECH OZONE combines the contemporary production of Ozone with these characteristics.

The technology of titanium nanotechnology applied to the inside of the container amplifies the ultraviolet light effect increasing its efficiency by more than 80%.

The line of UV-C NANOTECH systems includes a patented system for continual chemical cleaning of quartz pipes, thus constantly ensuring the utmost efficiency of the system.

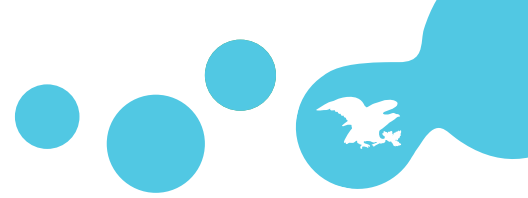
The use of amalgam and low pressure UV lamps ensures their efficiency and a life of over 16,000 working hours

The high density Polyethylene tube and the passivated aluminium head ensure the maximum durability against any type of corrosion and tightness up to 10 Atm.

The lamp's electronic control system enables obtaining the greatest performance and minimum energy consumption for the same installed power.

Continuous monitoring of the efficiency of the lamps warns us when the system's performance is reduced. performance reduction. The use of flow control prevents unnecessary overheating.

The combination of the UV-C NANOTECH system and the TELEPOOL SAVE ENERGY system for monitoring and remote control of the main parameters of the treated water enables coordinating and maximizing the results when the water treatment requires simultaneous use of UV radiation and other chemical treatments: it optimizes consumption, increases the efficiency of the system keeping it continually monitored (with multi-parameter recording), with the possibility of remote control and alarms in real time (SMS or WEBSERVER).



FIELDS OF USE OF UV-C NANOTECH LAMPS

UV-C rays are employed in many different fields, in particular, to mention the main ones:

Treatment of drinking water: disinfection and elimination of complex molecules

Treatment of tap water: disinfection and elimination of Legionella

Treatment of swimming pool water: disinfection and elimination of Combined Chlorine and THM

Treatment of process water: disinfection and elimination of complex molecules

Treatment of SPA water: disinfection and elimination of complex molecules

Treatment of sea water: disinfection and elimination of complex molecules

Treatment of waste water: disinfection and elimination of bad smells

Treatment of air: disinfection and elimination of complex molecules and odours

Code	Description
0123068044	TUBE UV-C 2- 80 W - SEA WATER OZONE
0123068046	TUBE UV-C 3- 360 W - SEA WATER OZONE
0123068050	TUBE UV-C 5- 600 W - SEA WATER OZONE

Code	Description
0123068036	TUBE UV-C 3- 360 W - SEA WATER OZONE PLUS
0123068040	TUBE UV-C 5- 600 W - SEA WATER OZONE PLUS

UV-C NANOTECH AND COMBINED SYSTEMS

The use of UV-C radiation for treating water and air lends itself to combined systems where the synergistic action of the UV-C radiation and other disinfectants enables obtaining extraordinary and eco-compatible results, such as:

Water treated with UV-C rays and disinfection with a daily addition of small doses of products that prolong the effect of the UV rays (UV + OXYGEN) guarantee healthy, clear, and crystalline water without causing damage to the skin, hair, mucosa or eyes; this combined action makes swimming extremely pleasant.

The great benefits of using UV-C rays can be summed up as follows:

- Considerable respect for the environment with the use of C-type ultraviolet rays with physical and persistent action, no toxic residue for nature and human beings.
- No risk of allergies.
- No corrosion and no smell.
- Compatible with most coverings and materials.
- Easy, rapid installation.
- Reliability.
- Cost-effective treatments.



TUBE UV-C 2 80W

BIOVITRUM

Filter media

NEW !

Our Biovitrum glasses comply to
UE 2020/2184 and DM 174/2004

BIOVITRUM is a filter medium developed by Barchemicals Group on the basis of laboratory research, field experience and partnerships with Universities.

The use of ground glass instead of quartzite reduces the risk of lime-scale formation, while agglomerates make the backwashing of the filter media more fluid.

BIOVITRUM production starts with the selection, washing and sterilisation of the raw material and activation of the active sites by means of heat treatment.

This enables these materials to amplify all processes of filtration and autoflocculation of organic and colloidal substances, and inorganic substances, depending on the application involved.

BIOVITRUM Ag+® has a molecular layer of nanotechnological silver deposited on its surface, which performs its bacteriostatic and bactericide function by simple contact. These characteristic make **BIOVITRUM Ag+®** particularly suitable for the treatment of drinking water and swimming pool water, and where it is necessary to prevent the formation of especially strong biofilm.

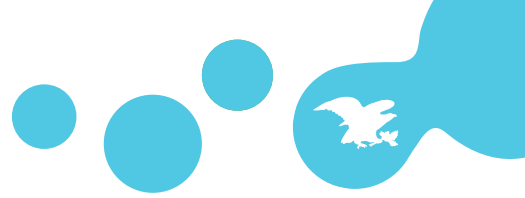
BIOVITRUM Ti® with nanotechnological titanium makes this filter medium particularly suitable for drinking water as well as process, swimming pool and even waste water. The silver coating on the surface of biovitrum is obtained by means of a special patented process, which permanently fixes the metallic silver atoms to the glass.



This process gives the surface long-term immunity to attack, even by concentrated chemicals put into the swimming pool water.

Silver is well known as one of the most powerful disinfectants found in nature, so the surface of BIOVITRUM Ag+ is self-disinfecting.

The special coating prevents clogging of the filter medium as a result of the accumulation of inorganic material on the surface of the grains.



BIOVITRUM Ag+®

Filter media



BIOVITRUM Ag+ is an innovative water filtration material made of glass particles with a nanotechnological coating containing silver. The presence of nanotech silver makes Biovitrum **bactericidal and bacteriostatic**, thus facilitating conventional disinfection processes and preventing the development of hazardous pockets of bacteria and the formation of biofilm in the filter.

BioVitrum Ag+



The filtration quality of **BIOVITRUM Ag+** is long-lasting because the silver coating is **permanently fixed to the surface** of the filter media by means of patented technology, and is immune to attack from the chemical agents found in the water. The composition of BIOVITRUM Ag+ means that it can be used to filter swimming pool water, process water and waste water.

BACTERICIDAL AND BACTERIOSTATIC

Sand is a good filter medium, but is also an ideal medium for the spread of bacteria. In just a few days, every grain of sand is colonised by bacteria. They tend to instantly form a biofilm

to protect themselves from the disinfecting product.

The special coating of **BIOVITRUM Ag+** makes its surface immune to attack by bacteria, and prevents the formation of biofilm, thus considerably improving filtration quality. Very often biofilm leads to the formation of clumps of filtration material, creating preferential routes inside the filter media and considerably limiting the effectiveness of the filter action.

BIOVITRUM Ag+ prevents the development of biofilm and accumulations of organic substances in the filter. **Less chlorine is therefore consumed** during the disinfection process because, in filters contaminated with biofilm, part of the chlorine is used for disinfecting the organic substances and bacteria found in the filter.

NO SMELL OF CHLORINE

Chlorine is undoubtedly an excellent disinfectant but the reaction with organic and inorganic substances produces other reactions that lead to the formation of combined chlorine like chloramine, chlorophenol and trihalomethane.

Using less chlorine for disinfection generates fewer by-products of disinfection, which often smell unpleasant and are harmful to the health of bathers. Furthermore, the bacteria found in the biofilm convert urea into ammonia, which then reacts with the chlorine giving rise to chloroamine. However, if there is no biofilm and consequently no bacteria, this process is prevented, the urea remains in the water and reacts with the chlorine but is harmless. No biofilm, no chloroamine, no chlorine smell.

THE ADVANTAGES OF BIOVITRUM Ag+

Less time required for backwashing - considerable water saving

No smell of chlorine - no bacteria present in the filter and no generation of chloroamine on the filter;

Ecological - no biofilm - saves on chlorine and chemical products;

High life expectancy; no formation of biofilm - filtering efficiency that lasts over time

Crystal-clear water - no preferential routes . good filtering efficiency

Applications:

Filter media for:

- Swimming pool water
- Waste water
- Process water

With high bacteriostatic power thanks to the silver particles. In certain cases, BIOVITRUM Ag+ can be used as it is or in conjunction with other filter media, such as quartzite, anthracite, active carbon etc.

Operating criteria

Recommended filtration speed:
35 – 50 m/h

Washing with air:
60 – 100 m/h

Washing with water:
MAX 50 m/h

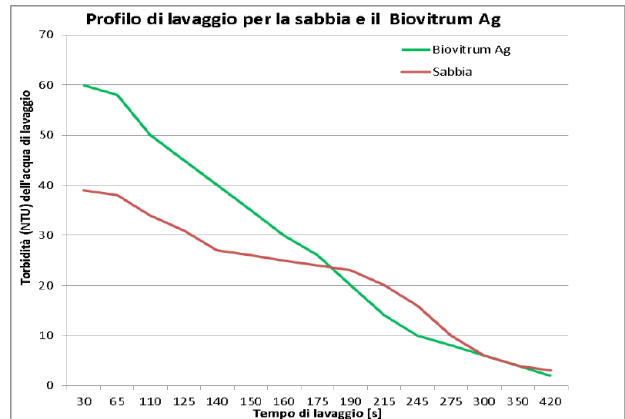
Filter medium expansion:
10 to 30%

LONG FILTER BED LIFE

The backwashing process is the process with which the filter is washed against the current and most of the organic substances found in it are removed.

During this process most of the biofilm, however, is not removed, in other words the organic/inorganic mixed structure that is generated by the bacteria. Often the accumulation of biofilm is the main reason why the filter does not work at its best.

The performance of **BIOVITRUM Ag+**, thanks to the special coating that prevents the accumulation of biofilm, remains unaltered and high for many years. Furthermore, all the backwashing processes, because there is no biofilm, are optimised and facilitated thus guaranteeing a significant water saving.



The curve shows a comparison between the backwashing water of a sand filter and a Biovitrum Ag+ filter.

The Biovitrum Ag+ filter expels up to 35% more impurities.

The BIOVITRUM Ag+ activation process

The silver coating on the surface of **BIOVITRUM Ag+** is obtained by means of a special patented process, which permanently fixes the metallic silver atoms to the glass.

This process gives the surface long-term immunity to attack, even by concentrated chemicals put into the swimming pool water.

Silver is well known as one of the

most powerful disinfectants found in nature, so the surface of **BIOVITRUM Ag+** is self-disinfecting.

The special coating prevents clogging of the filter medium as a result of the accumulation of inorganic material on the surface of the grains.

FILTRATION RATING

The filter medium in filters with **BIOVITRUM Ag+** is very fine; so fine that at filtration speed of 35 - 50 m/h it guarantees nominal filtration of

less than 5 microns obtained without flocculation. The filtration rating of **BIOVITRUM Ag+** is therefore at least 25% higher than sand or normal glass. Nominal filtration of less than 0.1 microns can be achieved using flocculants.

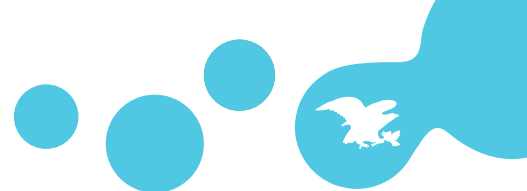
The water in your swimming pool will be clean and with zero turbidity.

Chemical Composition	
SiO ₂	71.36%
Fe ₂ O ₃	0.10 %
CaO	9.00 %
K ₂ O	1.21 %
Al ₂ O ₃	0.95%
MgO	3.80 %
SO ₃	0.30 %
Na ₂ O	13.80 %
Ag Nanotech	0.04 %

Material	
100% ground glass, heat-activated at over 600°C	
Specific weight	1.42 - 1.45 g/cm ³

DID YOU KNOW?

Silver ions seem to destroy micro-organisms instantly, by blocking the enzymatic respiratory system (i.e. energy production) and impairing the microbial DNA and cell wall, without having any toxic effects on human cells in vivo.



BACTERICIDAL AND BACTERIOSTATIC EFFECTIVENESS OF BIOVITRUM AG+

The following test was conducted for the purpose of determining the actual bactericidal effectiveness of **BIOVITRUM Ag+**. The tests were carried out on the most common kind of bacterial strains found in swimming pool water, or rather: *Staphylococcus aureus*, *pseudomonas aeruginosa*, coliform bacteria and *Enterococcus*.

The initial characteristics of the water brought into contact with the glass at "time zero" are as follows (CFU/100 ml, colony-forming units per 100 ml of sample water):

- **Enterococcus**= 18 CFU/100 ml
- **Total coliforms** = 9 CFU/100 ml
- **Pseudomonas aeruginosa** = 16 cfu/100 ml
- **Staphylococcus aureus** = 53 CFU/100 ml

After initially defining the species that contaminate water, we brought this water into contact with two samples of ground glass: the first was standard ground glass and the second was **BIOVITRUM Ag+**, i.e. special glass treated with nanoparticles of silver. After 15 minutes, 30 minutes, 3 hours and 5 hours of contact, the bacteria colony content was as follows:

CAMPIONE	Tempo 15' (dopo 15 minuti di contatto)				Tempo 30' (dopo 30 minuti di contatto)			
	Enteroc.	Coliformi	Pseudo.	Stafil.	Enteroc.	Coliformi	Pseud.	Stafil.
Acqua (Tempo 0)	18	9	16	53	18	9	17	53
Vetro Standard	19	9	17	53	19	9	18	54
BIOVITRUM Ag+	3	0	1	14	0	0	0	1

CAMPIONE	Tempo 180' (dopo 3 ore di contatto)				Tempo 300' (dopo 5 ore di contatto)			
	Enteroc.	Coliformi	Pseudo.	Stafil.	Enteroc.	Coliformi	Pseud.	Stafil.
Acqua (Tempo 0)	19	9	17	54	20	10	17	54
Vetro Standard	22	10	19	56	24	12	21	56
BIOVITRUM Ag+	0	0	0	0	0	0	0	0

As the figures show, **BIOVITRUM Ag+**, special glass treated with nanoparticles of silver, exerts a powerful bactericidal and bacteriostatic action that prevents the formation of biofilm while at the same time helping other biocides to disinfect the water.

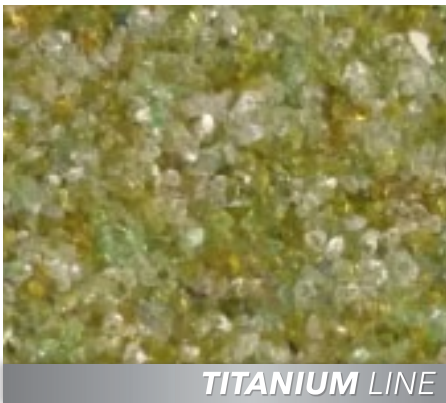
Code	Description
010602080	BIOVITRUM AG+ - 0.4 / 1.0 MM - SA 25 KG
010602081	BIOVITRUM AG+ - 1.0 / 3.0 MM - SA 25 KG

BIOVITRUM Ti®

Filter media

BIOVITRUM Ti® is an innovative water filtration material made up of glass particles with a high-tech coating containing titanium. The presence of titanium, exploiting a catalytic reaction, makes **BIOVITRUM Ti** self-cleaning, preventing the adhesion of dirt, grease and the formation of biofilm inside the filter.

BioVitrumTi



TITANIUM LINE

The filtration quality of **BIOVITRUM Ti** is long-lasting because the titanium coating is permanently fixed to the surface of the filter media and immune to attack by the chemical agents found in the water. The special coating reduces the frequency of backwashing and consequently cuts down on filter maintenance.

The composition of biovitrum ti means that it can be used to filter swimming pool water, process water and waste water.

DISINFECTION-PROMOTING CATALYTIC EFFECT

Sand is a good filter medium, but is also an ideal medium for the spread of bacteria. In just a few days, every grain of sand is colonised by bacteria. They tend to instantly form a biofilm to protect themselves from the disinfecting product. Entire communities of bacteria and

pathogen agents live in this biofilm, including legionella. The special coating of **BIOVITRUM Ti** makes the surface catalytic, notably increasing the disinfecting action of normal disinfectants, impeding the adhesion of dirt, grease and the formation of biofilm, and thus improving filtration quality. Very often biofilm leads to the formation of clumps of filtration material, creating preferential routes inside the filter media and considerably limiting the effectiveness of the filter action.

No biofilm - no preferential routes - high filtration efficiency.

LESS CONSUMPTION OF CHLORINE AND CHEMICAL PRODUCTS

BIOVITRUM Ti counteracts the adhesion of dirt, grease and the formation of biofilm, preventing the accumulation of organic substances in the filter. Less chlorine is therefore consumed during the disinfection process because, in filters contaminated with biofilm, part of the chlorine is used for disinfecting the organic substances and bacteria found in the filter.

NO SMELL OF CHLORINE

Chlorine is undoubtedly an excellent disinfectant but the reaction with organic and inorganic substances produces other reactions that lead to the formation of combined chlorine, such as chloramine, chlorophenol and trihalomethane. This occurs mainly when the disinfecting process is incomplete. The special coating of **BIOVITRUM Ti** Catalyses the normal processes of disinfection by oxidant agents, making them faster and more effective, and therefore reducing the formation of disinfection by-products, which are often unpleasant and

harmful to the health of bathers.

Furthermore, the bacteria found in the biofilm convert urea into ammonia, which then reacts with the chlorine giving rise to chloroamine.

THE ADVANTAGES OF BIOVITRUM Ti:

Less time required for backwashing - considerable water saving

No smell of chlorine - no bacteria in the filter and no generation of chloroamine on the filter;

Ecological - catalyses the destruction of biofilm - saves on chlorine and chemical products

High life expectancy; no formation of biofilm - filtering efficiency that lasts over time

However, if there is no biofilm and consequently no bacteria, this process is prevented, the urea remains in the water and reacts with the chlorine but is harmless.

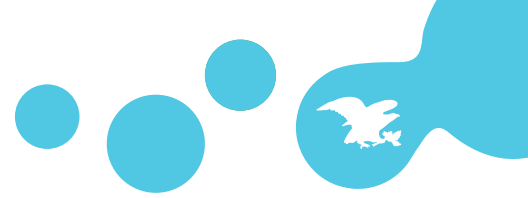
No biofilm - no chloroamine - no chlorine smell.

Applications:

Filter media for:

- Drinking water
- Swimming pool water
- Industrial water

Its mono-particles of titanium promote and exert a catalytic action on organic substances.

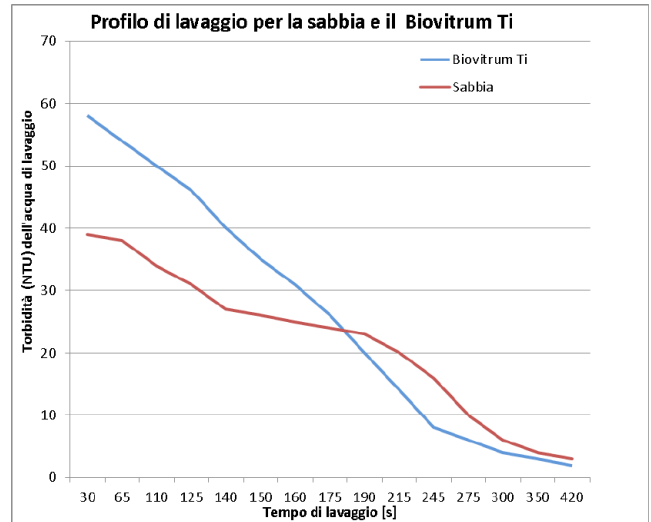


LONG FILTER BED LIFE:

The backwashing process is the process with which the filter is washed against the current and most of the organic substances found in it are removed, organic substances that accumulate thanks to normal filtering.

During this process most of the biofilm, however, is not removed, in other words the organic/inorganic mixed structure that is generated by the bacteria. Often the accumulation of biofilm is the main reason why the filter does not work at its best.

The performance of **BIOVITRUM Ti**, thanks to the special coating that increases the disinfecting effect and helps counteract the accumulation of biofilm, remains unaltered and high for many years. Furthermore, all the backwashing processes, because they have no biofilm, are optimised and facilitated thus guaranteeing a significant water saving.



The curve shows the comparison between the backwashing water in a sand filter and a Biovitrum Ti one. The Biovitrum Ti filter expels up to 35% more impurities.

THE BIOVITRUM Ti ACTIVATION PROCESS

The titanium coating on the surface of **BIOVITRUM Ti** is obtained by means of a special patented process, which permanently fixes the metallic titanium atoms to the glass. This process gives the surface long-term immunity to attack, even by concentrated chemicals put into the swimming pool water.

Titanium is well known as one of the most powerful disinfectants found in

nature, so the surface of **BIOVITRUM Ti** increases its disinfecting action.

The special coating prevents clogging of the filter medium as a result of the accumulation of inorganic material on the surface of the grains.

FILTRATION RATING

The filter medium in filters with **BIOVITRUM Ti** is very fine; so fine that at filtration speed of 35 - 50 m/h it guarantees nominal filtration of less than 5 microns obtained without

flocculation. The filtration rating of **BIOVITRUM Ti** is therefore at least 25% higher than sand or normal glass. Nominal filtration of less than 0.1 microns can be achieved using flocculants. The water in your swimming pool will be clean and with zero turbidity.

Chemical Composition	
SiO ₂	70.50%
Fe ₂ O ₃	0.30%
CaO	9.50%
K ₂ O	1.20%
Al ₂ O ₃	2.30%
MgO	2.15%
B ₂ O ₃	0.15%
Na ₂ O	13.30%
TiO ₂ nanotech	0.06 %

Material	
100% ground glass, heat-activated at over 600°C	
Specific weight	1,35 - 1,45 gr/cm ³

Operating criteria
 Recommended filtration speed: 35 – 50 m/h
 Washing with air: 60 – 100 m/h
 Washing with water: MAX 50 m/h
 Filter medium expansion: 10 to 30%

Code	Description
010602082	BIOVITRUM TI 0.4 - 0.9 MM - SA 25 KG
010602083	BIOVITRUM TI 1.5 - 2.5 MM - SA 25 KG

BIOVITRUM SFERE

Glass beads for filters

Filtering material for water filters, consisting of **potassium-sodium silicate glass** microspheres. BioVitrums Sfera helps to achieve optimum backwashing efficiency - which also reduces water and electricity consumption by over 50% - thanks to the special shape of the pearls and the chemical and physical properties of the surface ensuring uniform distribution of partial electrical loads.

The chemical composition of **BioVitrums Sfera** means it can be used to filter any kind of water: pool, drinking, process and sewage water. It also prevents the formation of surface limescale and silicate deposits, thereby avoiding the resulting "compacting" of the filtering material which results in preferential channels for leaks and causes the filtering material to perform less efficiently. The extreme roundness of BioVitrums Sfera reduces the space for the passage of water between the glass spheres that are only a few microns in size, making filtering effective and very fast (**50 m³/m²/h**). In multi-layer filters with uniform charge, filtration speed can reach **50 m³/m²/h** in accordance with Italian standard **UNI 10637:2015**.

BioVitrums Sfera Ag+ also available. In this variant the balls are coated with cationic and metallic silver, thereby reducing the formation of biofilm by up to **99%**.

Applications:

Filtration of **swimming pool water** (BioVitrums Sfera complies with both **UNI 10637** and **DIN 19643** standards)

Filtration of **drinking water** (BioVitrums Sfera does not emit heavy metals into the filtered

water)

Filtration of **seawater and water used in natural swimming pools and decorative/fish breeding ponds**.

Filtration of sewage water (the product is used in accordance with the particle sizes for coarse filtration and refining of sewage water before final drainage)

Filtration of **process water** (depending on the situation, BioVitrums Sfera can be used as it is or in combination with other filtering methods: quartz, anthracite, active carbon, etc.)

Filtering water for **agricultural use** (BioVitrums Sfera's minimal tendency to compacting allows the surface water used in agriculture to be pre-treated prior to its introduction into irrigation lines, thus preventing the nozzles from blocking)

Filtration of **water for animal consumption**.

BioVitrums Sfera



THE ADVANTAGES OF BIOVITRUM SFERE:

Produces crystal-clear, hygienically pure water.

Less time required for backwashing - considerable savings of water and energy;

No smell of chlorine - no bacteria present in the filter and no generation of chloroamine on the filter;

Ecological - no biofilm - saves on chlorine and chemical products;

Crystal-clear water - no preferential routes . good filtering efficiency

Has a practically unlimited service-life

Reduces the frequency of maintenance

Chemical Composition

SiO ₂	71.20%
Fe ₂ O ₃	0.07%
CaO	7.51%
K ₂ O	1.27%
Al ₂ O ₃	2.40%
MgO	1.28%
Na ₂ O	15.42%

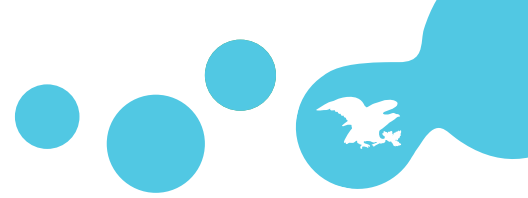
Material

100% sodium and potassium glass	
Specific weight	1.42 - 1.50 g/cm ³
Roundness	Minimum 80%

Code

Description

010602059	BIOVITRUM SFERE SMALL 0.6-0.8 MM - SA 25 KG
010602062	BIOVITRUM SFERE BIG 1.2-2.5 MM - SA 25 KG



TECH STANDARD

Laminated filters for domestic pools

Laminate filter made of fibreglass-reinforced polyester, complete with selector valve.

Top cover ø 410mm complete with pressure gauge and manual vent.

1" 1/2 bottom drainage plug for water and sand.

Port-type outlets.

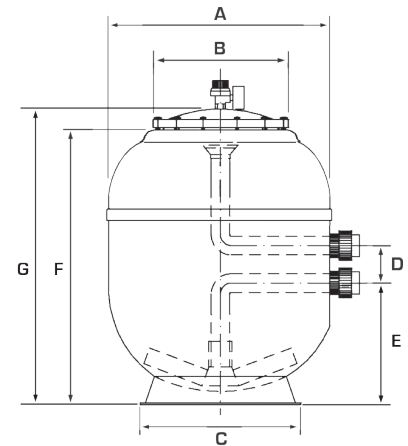
Internal distribution by means of filter candles.

6-way selector valve for control operations.

For private applications.



A	B	C	D	E	F	G
500	410	440	100	330	630	760
610	410	440	100	330	735	865
765	410	600	160	250	805	935
920	410	600	160	250	930	1060



Code	Diam. mm	Flow rate m3/h	Outlets	kg Sand
8021402002	500	10	1" 1/2	100
8021402004	610	14	1" 1/2	150
8021402006	765	22	2"	200
8021402008	920	33	2"	350

GENERAL SALES CONDITIONS

Pursuant to Art. 1469 bis c.c., the parties, after ample discussion and negotiations, declare to regulate the ongoing rapport as in the past according to the following terms and conditions, which will be applied equally to all supplies and/or commercial interaction entered into between the parties in the future.

1. ORDERS - BUYER INSOLVENCY – 1.1.) The purchaser's order has the value of an irrevocable purchase offer and is not binding for the seller, which reserves the right to accept it in writing directly or through a legal representative. The sales agreement will be considered fulfilled only upon receipt by the purchaser of the order confirmation by the seller's legal representative. 1.2) Upon the seller's acceptance of the order, the agreement is considered closed and, in the event that the goods are not collected, the purchaser will be considered insolvent and, as a result, will be liable to pay a fee equal to 50% the amount of the invoice, without prejudice to greater damages. The agreement will be considered fulfilled even in the event of partial acceptance of the order, so that the failed collection of the goods will entitle the seller to demand the fee described in the above paragraph, to be calculated on the lower amount of the invoice. 1.3) Any specific agreement relative to the supply mentioned in this order and under the terms of delivery, even if with the participation of agents or those appointed by the seller, cannot bind the latter unless expressly accepted in writing by their legal representative. 1.4) The total and/or partial fulfilment of the order by the seller implies acceptance of the order. 1.5) The purchaser has absolutely no right to withdraw unilaterally from the order or contract. 1.6) If, once the order has been confirmed, the seller becomes aware of unpaid bills, confiscations, restraint orders or any judicial acts in general in the name of the purchaser, or if the seller learns that the purchaser is in financial difficulty, the seller can, if they wish, suspend the contract and demand certain guarantees, or dissolve the contract due to its breach by the purchaser, under art. 1456 of the civil code, communicating this in writing with return receipt or telegram. The exercise of this faculty does not give the purchaser any right to claim reimbursement of damages or other. 1.7) The minimum order accepted is of € 250.00 + VAT.

2. PRICES AND PAYMENTS – 2.1.) The sales price, where unspecified, is the one found in the seller's price list in vigour on the date the contract is finalised. 2.2) Should the purchaser fail to receive the products when they are ready for delivery, or their preparation and delivery were not possible for reasons of no fault of the seller, the prices, if not already foreseen in the order, will be subject to variations in the seller's price list and, in any case, to the variation of the cost of material and manual labour used from the time the goods have been prepared up until the moment of collection by the buyer or acceptance of the delivery. 2.3) Taxes, duties and expenses relative to the emission of bills of exchange or any regularisation of the contract, are at the purchaser's expense. 2.4) Payments must always be made in accordance with the terms and conditions agreed upon, in Euro, in cash and at the seller's headquarters. It is at the seller's discretion whether or not to accept promissory notes and cheques, or authorise drafts or issue bank receipts. This, however, does not bring about under any circumstances, either novation of the original credit, nor any prejudices towards any title retention agreement, nor territorial change in the event of a legal dispute. 2.5) Payments made to seller's agents will not be accepted unless previously authorised by the seller in writing. 2.6) Late payment sees interest mature at a rate foreseen under art. 5 of the Legislative Decree 231/2002 effective pursuant to art. 4 of the same Leg. Decree. 2.7) Any amounts unpaid by the purchaser authorise the seller to instruct immediately a legal representative to proceed to the collection of the outstanding balance, plus legal fees.

3. DELIVERY – 3.1.) The delivery terms are indicative and apply from the moment when all the points in the contract have been supplied and defined irrevocably, provided that the purchaser has punctually paid the instalments due. 3.2) If there are any outstanding payments, even ones relating to previous supplies, the seller has the right to suspend the implementation of the contract until payment has been made and sufficient guarantee has been given on payments due. 3.3) Delivery is carried out on weekdays and can be sufficiently postponed due to events beyond the seller's control such as strikes, trade union action, lockouts, fires, flooding, rejection of material or work, delayed delivery by third party suppliers, lack of driving force and other unforeseen events. Whatever the situation, delays caused in delivery cannot lead to any form of legal claim. 3.4) The seller has the right to make partial deliveries. 3.5) Delivery is regarded as having been completed in all its terms at the seller's headquarters on the twentieth day after delivery of the return receipt in which the seller notifies the purchaser that the products are ready. From that moment onwards, all risks to the goods become the responsibility of the purchaser and they will also be charged for storage, safekeeping, maintenance and insurance. After twenty days have elapsed since delivery of the above mentioned return receipt and if the client has not picked up the products, or the seller has been unable to deliver them, the seller has the right to sell the goods at the purchaser's expense, under art 1515 of the Civil Code.

4. CHANGES TO THE PRODUCTS – 4.1.) All the data and characteristics contained in the seller's catalogues, price lists, illustrations, drawings, offers and advertising material in general are entirely approximate and do not bind the seller in any way. All the photographs that appear in the catalogue are only explanatory and so no compensation will be paid for delivered material that is different from the images. 4.2) The seller reserves the right to make changes to the products where necessary, without any obligation to warn the purchaser, as long as the product's functions remain the same. 4.3) After the order has been placed, the seller is not obliged to make any changes to goods already produced, or in the course of production, that are destined for the purchaser.

5. PROHIBITED ACTION – 5.1.) Under no condition can the purchaser take legal action against the seller unless all the payments foreseen in the contract have been met. 5.2) From the outset, the purchaser hereby declares that no request for damages or expenses incurred from improper use of the goods, or damage that occurred during the period of time they were waiting for an authorised replacement of the goods, for the goods themselves or for their replacement, can be made.

6. SHIPPING AND LOGISTICS – 6.1.) Goods travel at the purchaser's risk. 6.2) Goods are intended always as sold at the seller's facility and delivered via a customer's means of transport or appointed courier. Any search for a means of transport undertaken by the seller is meant to be on behalf and in the interest of the purchaser, with no liability and/or cost for the seller. Any inclusion in the sales price of transport costs or the agreement "collection at source" does not constitute an exception to this clause. Any losses, faults, alterations of the goods and packaging for any reason are the responsibility of the customer, including in the event that, upon the logistics operator's request, the seller has to issue warranty statements. 6.3) The customer may not refuse to release

the goods in transit for any reason. 6.4) When the purchaser does not specify the transport means in time, this will be selected by the seller without any responsibility being incurred by the latter. 6.5) Any delivery carried out by the purchaser for contested goods, to be replaced on prior authorisation, must be done carriage free to the seller's factory and where the contrary occurs, the seller will have the right to refuse reception with no responsibility incurred.

7. TESTS - PRODUCT FAULTS – WARRANTY – 7.1.) The purchaser will be responsible for any damage or harm to the seller's testers or third-parties, while tests are being carried out, unless testing is carried out at the seller's factory. 7.2) The test will be carried out on delivery; if it should be delayed due to the fault of the purchaser, the subsequent test will have to be paid for in advance covering travel, labour and transfer costs. On completion of the test, the purchaser is obliged to issue the seller with a written declaration showing the results obtained. In the absence of this declaration, the goods sold will be regarded as having been accepted unconditionally and without reserve. 7.3) If the goods do not have to be subject to testing, when the goods are delivered, the purchaser will have to diligently check that there are no faults. 7.4) Any faults should be reported to the seller via registered mail with return receipt within eight days, which start from a) when the test is carried out; b) if no test has to be carried out, from the delivery date; c) if they are faults that were not detectable at the moment of testing or when the above mentioned checks were run, from the moment they are discovered. Failure to comply with the above mentioned terms will result in the warranty becoming null and void. 7.5) All the seller's products are guaranteed free from manufacturing faults, according to current European and Italian regulations, or according to the additional warranties acknowledged by the producer. The seller's product warranty includes only and exclusively the repair or replacement of faulty parts at the seller's factory, without granting any refunds or other expenses; the warranty becomes null if the faults are found to be due improper use of the goods, or if the seller's products have been handled, repaired or altered outside the seller's factory, or if they have been installed with materials or procedures that do not comply with REGULATIONS. 7.6) The party that declares the existence of a factory fault will have to provide proof that the product has been used properly and, in this case, that it has been correctly installed. 7.7) The cost of replacement and re-sending of faulty material will be at the purchaser's expense. 7.8) It is understood by the parties that in any case the communication of faults of the seller's products do not authorise in any way the purchaser to suspend payment of the seller's invoices.

8. TITLE RETENTION AGREEMENT – 8.1.) In the case of a hire purchase sale, the goods will remain the property of the seller until the purchaser has completed all the payments and will be able to be claimed wherever it may be, even if it is combined with other goods belonging to the purchaser or third parties, in compliance with art. 1523 and subsequent amendments to the civil code. 8.2) During the said period, the purchaser shall assume the obligations and responsibilities of keeper of the items supplied, and shall not be entitled to transfer, lend, pledge or move them, or allow them to be confiscated or distrained, without declaring that they are the property of the vendor and without immediately notifying the vendor by registered letter with return receipt.

9. NON FULFILMENT BY PURCHASER - DISSOLUTION OF THE CONTRACT – 9.1.) Failure to make two payments, even if not consecutively, of the price agreed at the time established, will lead to the purchaser forfeiting the benefit of the term and the seller exercising the right to suspend all deliveries not yet completed and/or take measures to obtain the entire outstanding sum, or the dissolution of the agreement and/or of any other sales agreement in force between the parties, under art. 1456 of the civil code, to be notified in writing via registered letter with return receipt. 9.2) Under the second hypothesis, the purchaser will need to immediately return the goods, and will have to pay a penalty of €50 per day for each day of delay in returning the goods. 9.3) The compensation for the greater damage is without prejudice and the seller will also be entitled to withhold the payments already made as a form of compensation, with the exception of larger damages incurred.

10. TRANSFER OF CREDIT – 10.1.) The purchaser declares that they accept from the outset, under art. 1264 of the civil code, any transfer of credit owed by the seller to the factoring agency or similar, expressly exonerating them from any other burden of notification, except to confirm that transfer has occurred, via registered letter with return receipt.

11. COMPLAINTS - COMMUNICATION – 11.1.) Any complaints must be made at the seller's headquarters. For the purposes of the order and subsequent contract, the purchaser declares their residence at the address shown on the front cover of the order itself and all communication will be sent to this address, or to a different legal headquarters, at the seller's discretion. 11.2) In any case, the purchaser will have to communicate to the seller any other change of contact details and addresses within 15 days of the change.

12. APPLICABLE LAW AND COMPETENT COURT OF JURISDICTION – 12.1.) Regardless of the purchaser's nationality and residency, this agreement is subject to the jurisdiction of the Italian Judge. 12.2) The sole competent authority in the event of any dispute shall be the Justice of the Peace or the Court of Modena, according to value. 12.3) It will, however, be the seller's right to elect of their choice, other legally recognised, competent Forums.

13. PERSONAL DATA HANDLING – 13.1.) Pursuant to Art. 10 of law No. 675 of 31/12/1996, your personal data may be subject to handling, meaning the collection, entering, organisation, storage, processing, modification, selection, extraction, comparison, use, interconnection, block, communication, distribution, deletion and destruction or any combination of two or more of the above. 13.2) These personal data will be handled for the following purposes: Administration, accounting, taxation, statistics, commercial, marketing, protection/management/transfer of credit, and to meet all requirements of the regulations in force and for the financial evaluation related to the proper fulfilment of the agreement. 13.3) Personal data will be handled with tools that ensure their safety and confidentiality, either in hard copy or digital format. Please be informed that with reference to the above mentioned handling, you are entitled to exercise the rights described in Art. 13 of law No. 675/96 as follows. 13.4) Your data may be communicated and distributed to the following: § Sales agents, suppliers, customers, couriers and logistics operators, collaborators, commercial and marketing companies and organisations; § Credit institutions, financing institutions, leasing companies, credit collectors, factoring companies, insurance companies, intermediation companies; § Professional firms (legal and commercial), organizations of consulting processing, statistics company; § Our subsidiary, partner or companies associated in any way. 13.5) The personal data may be communicated and transferred even abroad, in accordance with the provisions of the law. 13.6) The company declares to have viewed the information contained herein and in Art. 13 of law No. 675/96 and to express its consent to the handling of personal data for the purposes indicated in the same. 13.7) It also declares to express its consent to the communication and distribution of data for the purposes described above, including for the commercial and marketing purposes of undetermined parties.



MANY EXPERIENCES, A SINGLE REALITY



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