50 years of experience
at the service of our customers

OUR ADDED VALUE

SPEED AND FLEXIBILITY

Allow us to deliver any order, including special orders, as rapidly as possible, in Italy and abroad.

QUALITY AND CERTIFICATIONS

The quality of our processes and products is one of our strengths, thanks to a guaranteed production chain, certified according to the Standards ISO 9001 and Eurovent.

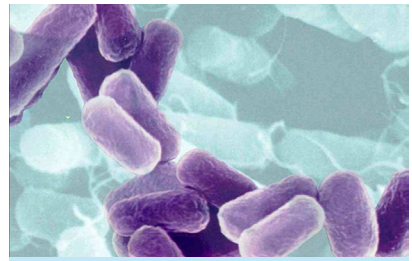
GREEN PHILOSOPHY

Our R&D is constantly committed to improve our product "performance", in order to offer advanced solution in a context of environmental and economic sustainability.

BENEFITS OF INDOOR AIR QUALITY

IMPROVED EFFICIENCY

Research shows that an optimal indoor air quality improves the productivity of the staff, also improving concentration and response in stressful situations.



REDUCED RISK OF INFECTIONS

Studies show that 80-90% of chirurgical infections depend on a "bad" air quality. An effcient filtration system and an optimal IAQ translated into a reduced risk of infection and thus reduced hospital costs.

LOWER COSTS

For example, to tackle an infection due to the Aspergillus niger mushroom, millions of Euro are spent every year in drugs; this amount could be in part saved thanks to a correct air filtration.

THE 9 AIR PURITY CLASSES

Maximum number of particles in the air (per cubic meter with dm = o > with respect to the items specified)

CLASS	> 0.1 µm	> 0.2 µm	> 0.3 µm	> 0.5 µm	> 0.1 µm	> 0.5 µm	old class fed std 209 e
ISO CLASS 1	10	2					
ISO CLASS 2	100	24	10	4			
ISO CLASS 3	1.000	237	102	35	8		1
ISO CLASS 4	10.000	2.370	1.020	352	83		10
ISO CLASS 5	100.000	23.700	10.200	3.520	832	29	100
ISO CLASS 6	1.000.000	237.000	102.000	35.200	8.320	293	1.000
ISO CLASS 7				352.000	83.200	2.930	10.000
ISO CLASS 8				**3.520.000**	**832.000**	**29.300**	100.000
ISO CLASS 9				**35.200.000**	**83.200.00**	**293.000**	1.000.000

Standard ISO 14644-1 is based on the use of the quantity of sampled air expressed metric values (cubed meter) rather than imperial units (CFM), which have always been used to characterized the controlled contamination environments and areas. 9 air purity classes and 6 particle sizes with size comprised between 0.1 and 5 µm have been identified.

GENERAL FILTER
GROUP | Air quality experts

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ITALIA | Air quality experts

Hospital & Cleanroom

GENERALFILTER

SINCE 1965, AT YOUR SERVICE TO IMPROVE AIR QUALITY

General Filter, with over 50 years of experience in the air filtration field, is capable of satisfying and guaranteeing the best technical and managerial solutions in the Indoor Air Quality (IAQ) sector. Our products, all rigorously "Made in Italy", cover any filtration need in hospital wards and cleanrooms, in compliance with local and international regulations. We offer state of-the-art solutions, including conditioning, filtering of operating rooms and labs, and specific solutions for isolation, intensive care and CAT wards.
Our technical staff is constantly at the disposal of our customers, analysing the best solutions in every step of the filtration process. The service is customized from the early stages of the process, by offering consultation services to the architect, designer or technical department, in order to optimize the technical and economical solutions and assist the client in the construction and installation of the products, including assistance for special maintenance needs.

SPECIFIC OFFER FOR CLEANROOMS

Many manufacturing companies require controlled propagation areas, to protect the products and the staff working in these environments.
For example, injectable drugs must be created and manufactured in a sterile environment; also the pharmaceutical and precision industry (microelectronics/fine mechanics/serigraphy) require a strict control of the sub-micronic contamination, in order to prevent dangerous contamination and protect the operators, who must not be exposed to the active principles. An elementary particle can compromise a manufacturing process worth thousands of Euro: just consider a microchip or a high-precision measuring tool, whose imperfection can cause damages in terms of unsellable items or corporate image.
General Filter has been producing absolute filters - E10, U15 (EPA/HEPA/ULPA) - for more than 25 years, capable of meeting the technical requirements of the most sophisticated cleanrooms. Our technical staff offers its support during the designing, installation, validation and maintenance phases, in order to recommend the best products for every use.

EXAMPLES OF PROCEDURE


International Standard ISO 14644-3: cleanroom associated controlled environments (part 3: Metrology and test methods) and other specific Standards


NFS90-351


Architectural technical code for Hospital Clean Operating Theatre;
GB 50333-2002


UNE 100713:200


Health technical Memorandum (HTM) 2025


DPR 14-Jan-1997, Ministry of Health, National Institute for Occupational Safety and Prevention, Occupational Health Department: "guidelines to defines the environmental safety standards of operating wards" UNI 10339


SWKI / SICC / SITC 99-3 und andere europäische Normen

General Filter
Specific offer for cleanrooms

TAM

Our offer of cleanroom filtering terminal ISO 4-5-6-7 is available with E10 - U10 efficiency range, and it comprises an anodized aluminium plenum, coupled with a laminar flow filter. The “mini-pleat” filtering package has a high resistance and stability; the fibreglass filtering media makes it water-repellent and fire resistant.
TAM terminals allow a fast and simple construction of controlled contamination rooms, without the use of fixed terminals. Furthermore, they allow to easily modify or expand existing plants. Upon request, they can be equipped with a capacity adjustment disk and adjustable pressure tap / DOP, usable from the cleanroom.

TAR

Designed to house our LES-LAM absolute filters, it guarantees a perfect seal between the filter box and the filter, and it comprises an anodized aluminium bearing structure, with upper thermoformed plastic plenum.
The filter-holder terminal can be equipped with a shutter and DOP pressure taps usable and adjustable from the clean room, in order to allow testing and adjustment within the sterile room.
The TAR can be equipped with an anodized aluminium perforated panel, suitable for laminar flow, or high induction diffuser, ideal for ISO 6-7 Class cleanrooms.

ABSN

ABSN are multiple pockets filters. The polypropylene fabric fil-ter media ensures a high accumulation of dust, extending the life of the pocket.
In addition, the stitching and the hot glue application (HOT-MELT) in the areas keeps controlled the swelling of sector, avoiding contact of one with another ensuring also, optimal distribution of air.

FILTERCEL
CFW-D
PLEATED FILTERING CEL

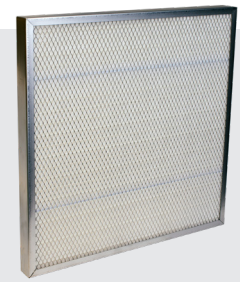
1

ALFABAG
ABA30-ABA40
G3 - G4 SYNTHETIC POCKET FILTERS

2

FILTERCEL
EPM6-EPM7-EPM9
MULTI-PLEAT FILTERING CELLS
M6-F7-F9

3



ABSN
ABSN-E
SYNTHETIC POCKET FILTERS
M6-F7-F8-F9

4

ALFABAG
NTRES-NTRES9
ENERGY EFFICIENT RIGID POCKET FILTERS F7 - F9

5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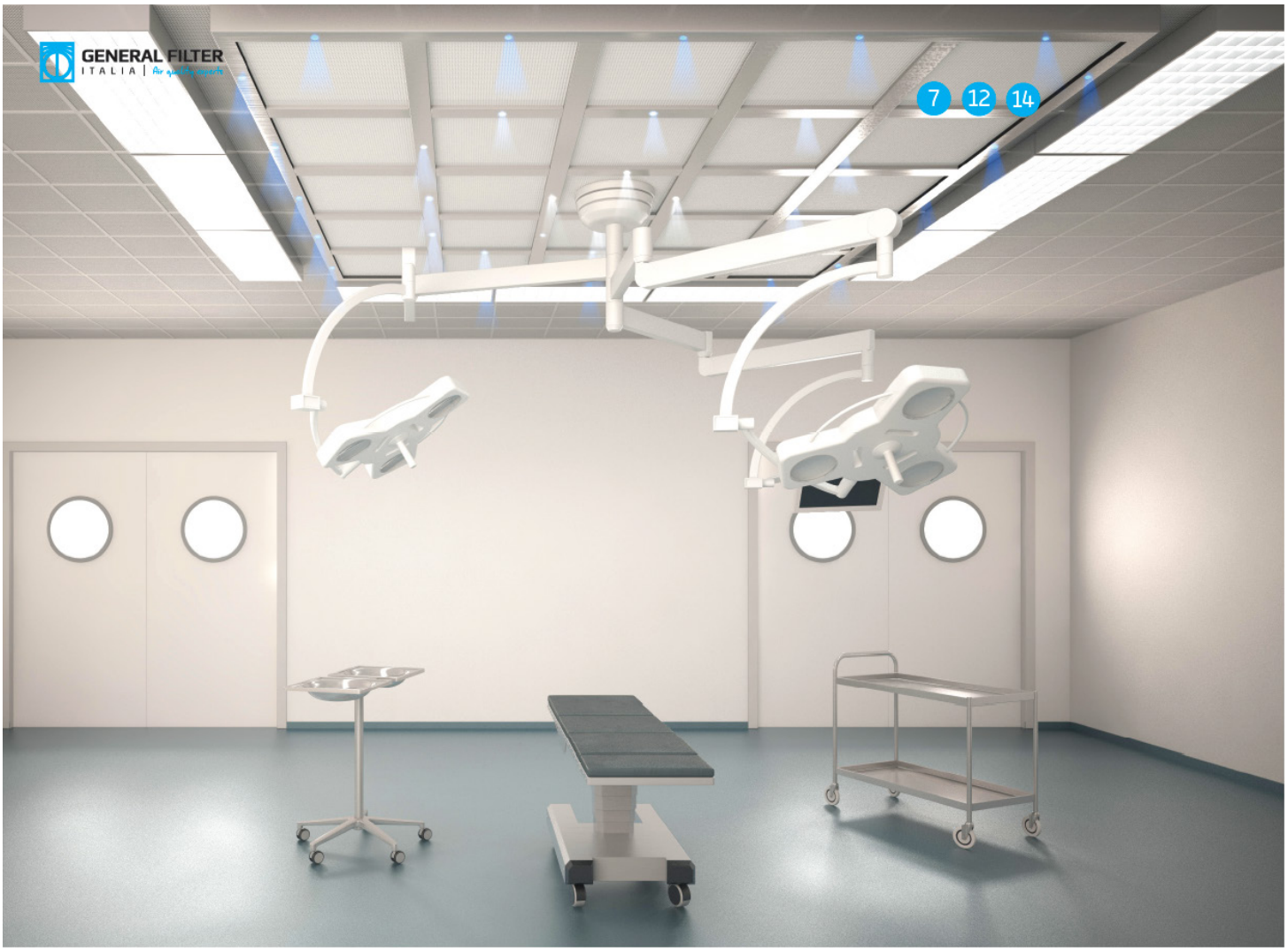
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General Filter
Specific offer for operating rooms

PFM

Unidirectional laminar flow ceiling plates for operating rooms, that guarantee the operating table sterility. Recommended for highly aseptic areas, such as transplant, hearth surgery, orthopaedics, ophthalmic neurosurgery areas.

The filtrating section comprises LAM GEL laminal absolute filters, with H14 efficiency pursuant to European Standard EN 1822, with anodized extruded aluminium frame, double protection mesh made of white aluminium and equalizing micromesh membranes, resistant to the disinfectants generally used in the operating rooms. The GEL seal guarantees the absence of any by-pass and makes its installation easy.

The ceiling plate comprises an AISI 304 stainless steel structure, with SB (Scotch-Brite) finish, TIG welded through an electrochemical reaction, and perfectly sealed, that can be inspected and sterilized. The filters can be equipped with technical fabrics with equalizing functions. These make the air diffusion extremely balanced, maintaining a unidirectional mode, even with different speeds than those of the typical laminar flow: 0.4 m/s +/- 20%.
The system can be manufactured in a single piece or in several modular pieces, for special transport, positioning and installation needs.

Unidirectional laminar flow ceiling plates for operating rooms, that guarantee the operating table sterility. Recommended for highly aseptic operating rooms, such as transplant, hearth surgery, orthopaedics, ophthalmic neurosurgery areas.

CANISTER

SPECIFICATIONS:

Canister are modular safety filter casing designed to house filters in criticalplants, with a total safety.
Their modularity allows a complete range of figures suitable to any filtrationrequest and flow.
All particular are designed with the purpose of assuring maximum reliability: a special system of eccentric leverages allows easy instal-lation and extraction of filters, granting perfect and lasting sealing. “Bag-in / Bag-out system” allows extraction and disposal of conta-minated filter in a complete safety.

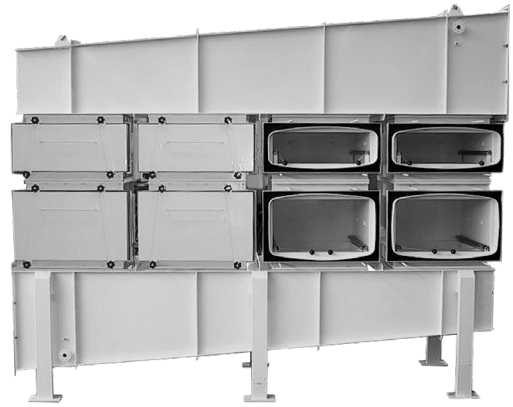
Modularity: canister are made in strong seam welded and painted iron sheet and can be fitted with three front dimensions (305x610 and 610x610 mm) and three depths of filter: 100 mm mod. P; 150 mm mod. F; 292 mm mod. G.

Filter locking lever: eccentric levers have been designed to assure easy maintenance and, in the same time, maximum safety, avoi-ding dangerous leaks of contaminated air: pulling on levers, filter is pushed against the flange with uniform force.

“Bag in / Bag out system”: this particular system allows the change of filters thus avoiding any direct contact with them. A safety plastic bag is connected by means of a special elastic ring to the mouth pie-ce of the canister to insulate the filter from environment. Used filter is removed directly into the bag and then sealed (thermo welded): in this way, we can achieve a totally safe maintenance both for operator and environment.

Collectors: connecting ducts dimensioned to have a silent flow are used both for inlet and outlet air.

Check system: pressure drop through the filters installed in the ca-nister, as well as filters efficiency, can be continuously monitored by means of suitable probes positioned on to collectors.



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