

**DEPOLVERAZIONE FILTRAZIONE**



## FILTER CELLS AND FIBRES

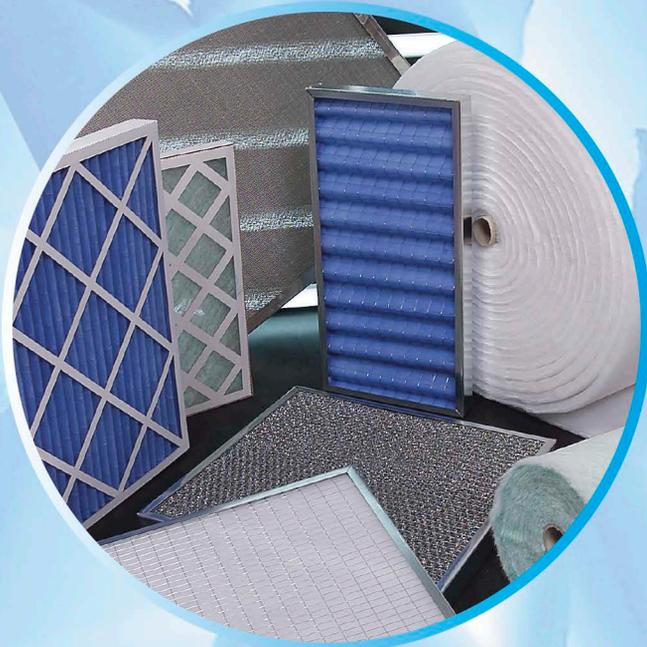
Filter media can be made up of synthetic fibre, glass fibre and metallic mesh. Synthetic fibres as well as glass fibres are bound together to create a special maze structure.

Filter media is the basic material for filter and cell construction

These products are used as pre-filters in multi-layer filtering systems, kitchen hoods or equipment in general to filter and purify air.

Efficiency classes from ISO COARSE to  $ePm_{10}$  50% according to the UNI EN ISO 16890:2017 Standards (ex classes from G2 to M5 according to the UNI EN 779:2012 Standard).

*For further information, see bulletin "DFG-DFP-DFC".*



## MEDIUM - HIGH EFFICIENCY POCKET FILTERS

These filters were designed and constructed of glass microfiber with seams that allow excellent air passage through the filter.

This leads to a higher particle accumulation and lower initial pressure drop; thus higher filter performance.

These filters can also be constructed of synthetic fibre or microfiber.

Efficiency classes from  $ePm_{10}$  50% to  $ePm_1$  85% according to the UNI EN ISO 16890:2017 Standards (ex classes from G4 to F9 according to the UNI EN 779:2012 Standard).

*For further information, see bulletin "DFT".*



## HIGH EFFICIENCY RIGID POCKET FILTERS

These filters were created by exploiting the principle of small glass microfiber paper filter media pleats with thermoplastic wire separators.

This solution can achieve high capacities with minimum volume.

The plastic pocket housing grants sturdiness and resistance, making it fully incinerable without emitting harmful gases

Filters suited to work in conditions such as variable air volumes, frequent fan stops and high humidity resistance. Efficiency classes from  $ePm_{10}$  65% to  $ePm_1$  80% according to

UNI EN ISO 16890:2017 Standards (ex classes from M6 to F9 according to UNI EN 779:2012 Standards).

*For further information, see bulletin "DFT/DIE".*

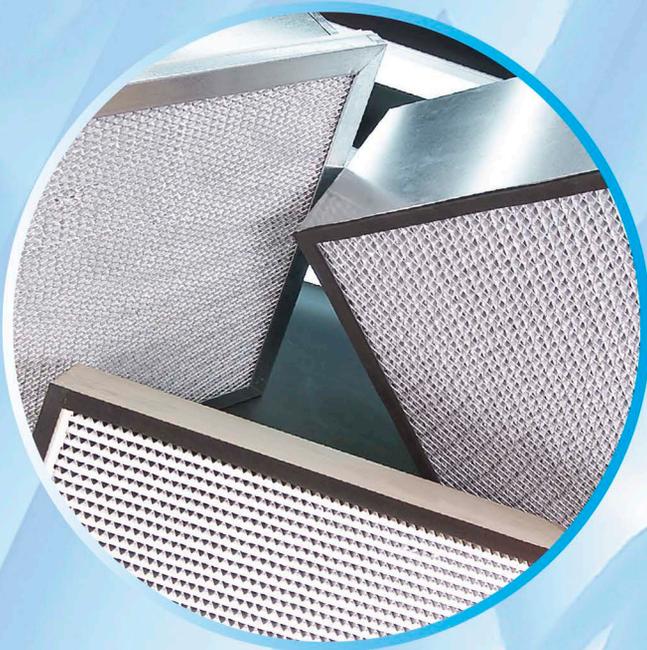


## HIGH EFFICIENCY FILTERS

These are filters that offer a high level of efficiency with extremely limited volumes and pressure drop; they have large filtering surfaces and can be used as an alternative to pocket filters. Their use is found wherever a high level of air cleanliness is required.

The filtering media is made of glass microfiber paper and can include “deep pleats” with corrugated aluminium separators or small pleats with thermoplastic wire separators. Efficiency classes from from ePm<sub>10</sub> 65% to ePm<sub>1</sub> 80% according to UNI EN ISO 16890:2017 Standards (ex classes from M6 to F9 according to UNI EN 779:2012 Standards).

*For further information, see bulletin “PAE”.*



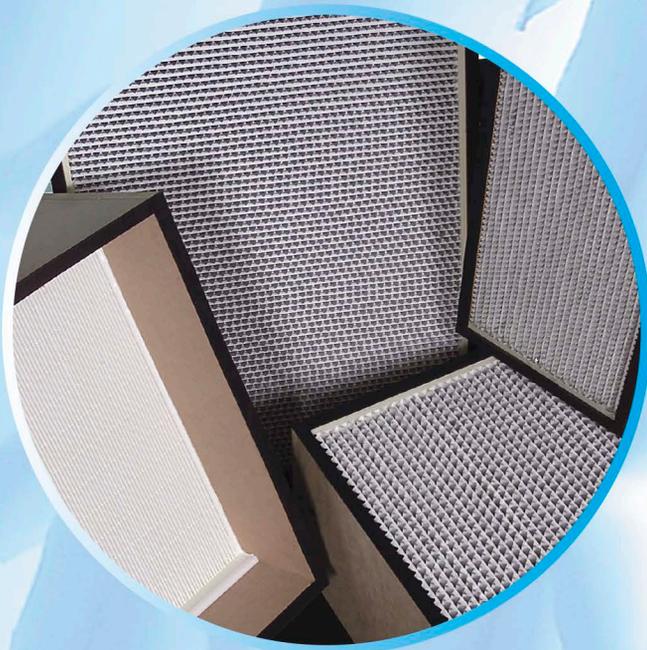
## ABSOLUTE FILTERS

The use of these filters is essential when sub-micron particle control must be absolute.

The filtering media is made of glass microfiber paper and can include “deep pleats” with corrugated aluminium separators or mini-pleats with thermoplastic wire separators.

Efficiency classes from E10 (85% MPPS–Most Penetrating Particle Size) to H14 (99.995% MPPS), according to EN 1822:2010 standards.

*For further information, see bulletin “PRO”.*



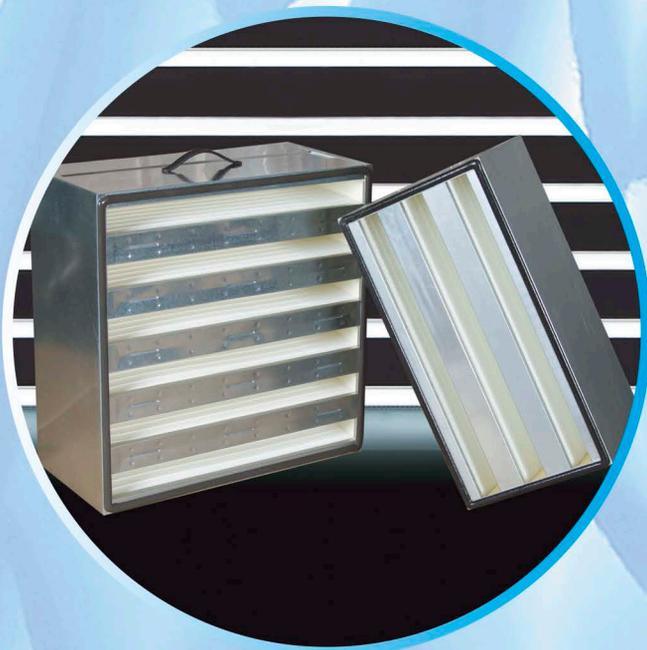
## POLYDIHEDRAL ABSOLUTE FILTERS

Currently these filters offer the best surface area/size ratio and therefore ensure a high filtration volume with low pressure drop.

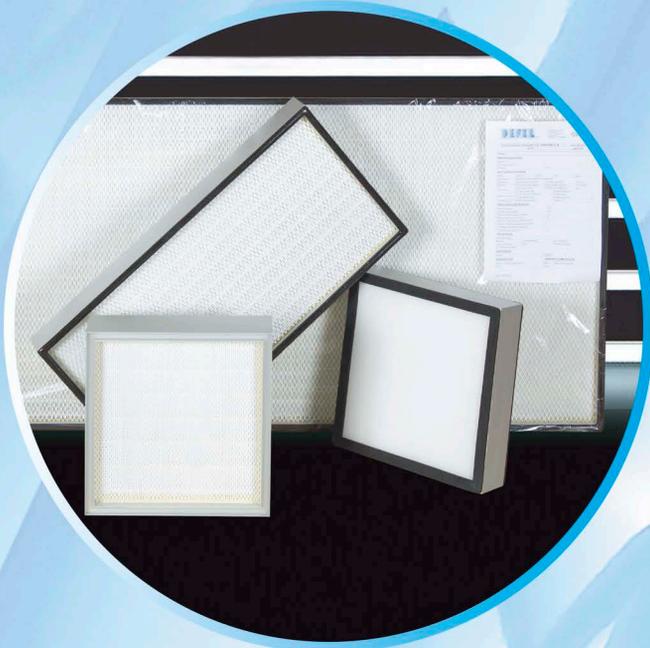
They are constructed using the “mini-pleat” technique with a polydihedral filter media.

Efficiency classe from E10 (85% MPPS) to H14 (99.995% MPPS) according to EN 1822:2010 standards.

*For further information, see bulletin “POL”.*



## LAMINAR FLOW ABSOLUTE PANELS



These filters are specifically designed to be used in clean rooms, sterile hoods, operating rooms and the food industry. The filter package is of the small pleat variety with thermoplastic wire separators and is sealed inside an anodised extruded aluminium frame.

The filter media is made of fireproof, impermeable glass microfiber paper. Efficiency classes from H14 (99.995% MPPS) to U17 (99.999995% MPPS) as per EN 1822:2010.

These filters are also available in the liquid tight version using a Gel seal and in the version with a "veil" on the air outlet side to improve air distribution.

*For further information, see bulletin "LAM".*

## FILTER DIFFUSER PANELS



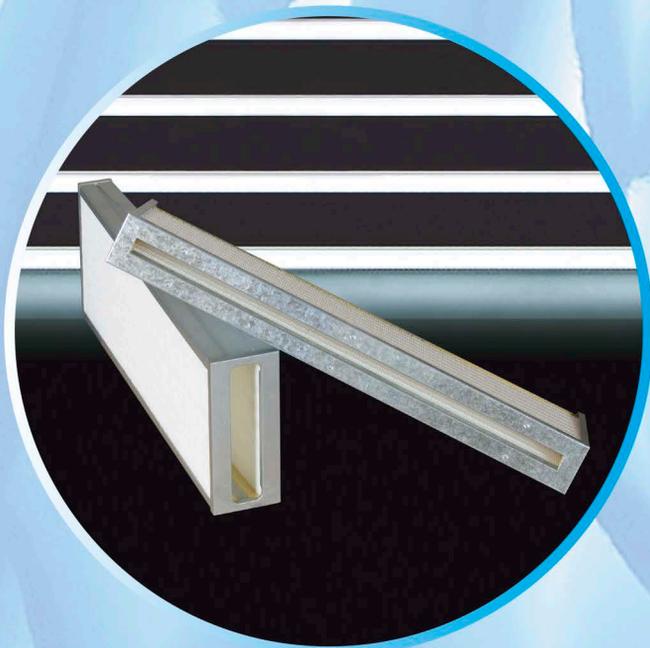
This series of filter diffuser panels is an excellent less expensive alternative for controlled contamination environments such as clean rooms in the pharmaceutical and food sectors or in any other environment that calls for more cleanliness than found under normal conditions.

This panel is made up of a single anodised aluminium block housing laminar flow panels and comes complete with a plenum box and a coupling for air duct.

Efficiency classes from H14 (99.995% MPPS) to U17 (99.999995% MPPS) according to EN 1822:2010 standards.

*For further information, see bulletin "DFUG".*

## DIHEDRAL FILTERS



These filters are typically dihedral shaped to provide two filtering faces.

Their modularity can allow for filtering blocks to be constructed

Also for DIE, the media is made up of glass microfiber paper mini-pleats with thermoplastic wire separators.

Efficiencies classes from  $ePm_1$  75% according to UNI EN ISO 16890:2017 Standards (ex classes F9 according to UNI EN 779:2012 Standards) to H13 (99.95% MPPS) according to EN 1822:2010.

*For further information, see bulletin "DIE".*



## ACTIVATED CARBON FILTERS

These filters are used to purify air of toxic gas and odours.

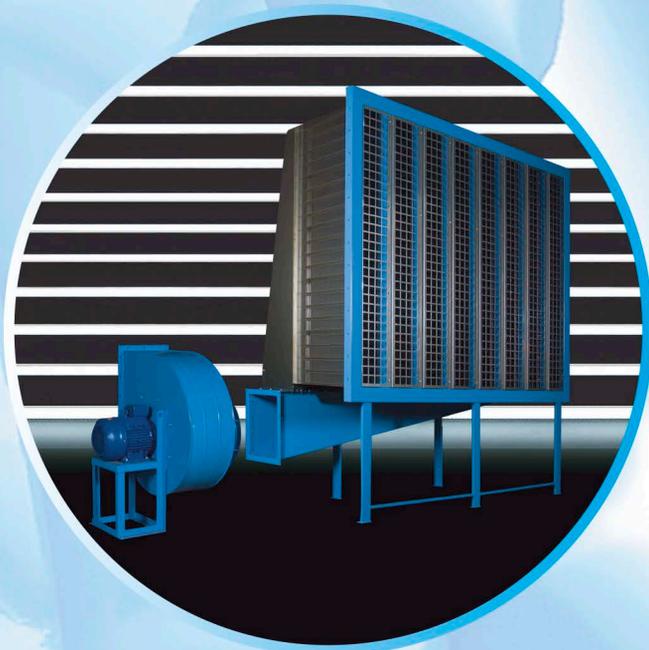
We provide a specific activated carbon filter type according to the pollutant.

Compared to absolute filters, carbon filter pressure drop is very high but constant over time.

They are multi-dihedral shaped, carbon is vibrated and pressed until there are no gaps between cylinders; a handle is installed on the frame to facilitate handling.

Flat panels and cartridge filters can also be constructed.

*For further information, see bulletin: "FAC".*



## INERTIAL FILTERS

Inertial filters were originally fitted on vehicles and plants located in desert areas.

These filters exploit the principle of the difference in kinetic energy possessed by particles of different masses in motion. The material used for their construction is COR-TEN that has its own self-oxidation process.

Inertial filters can be equipped with protective mesh, support structure and laminate housings.

*For further information, see bulletin: "DFI".*



## PERFECT SEALED FILTERS

CPT housings are designed to guarantee a perfect seal between filters and the housing using leveraging.

Barrier bags are used for maintenance, with highly toxic particles (BAG-IN/BAG-OUT).

They are made of sheet metal with an industrial decontaminable paint finish, press formed and PERFECT tight sealed. CPT housings are equipped with air in-out manifolds, reinforcements and intake points, set for control instruments, vacuum valve and DOP probe.

*For further information, see bulletin: "CPT".*

## AUTOMATIC ROTARY FILTERS

These filters are specifically indicated when large volumes of air must be processed with limited maintenance personnel availability or for installations in difficult areas. In fact, a differential pressure gauge and gear motor permit the saturated filter media to be restored using a roller.

Filter media used to construct these filters can be either synthetic or glass fibre.

Efficiency classes are  
ISO COARSE 65% for the fiberglass  
ISO COARSE 70% synthetic fiber,  
according UNI EN ISO 16890:2017 standards  
(ex classes from G3 to G4 according  
UNI EN 779:2012 Standards).

*For further information, see bulletin "FAR".*



## SELF-CLEANING DUST SEPARATORS

DCE dust separators offer a full range of continuous or timed self-cleaning filters; this range includes 600 different models ranging from small autonomous units with 4m<sup>2</sup> filter surfaces up to large filters over 2400 m<sup>2</sup> made with compressed air systems and cleaning.

The flat filter pocket line makes this unit extremely compact and saves a significant amount of space.



## CARTRIDGE FILTERS

These are made with various types of filter media (paper, polyester, anti-static polyester and glass microfiber) according to the type of particle to be filtered, size and level of explosiveness.

The stellar media layout also permits an excellent size/filtering surface ratio.

*For further information see bulletin "Filtering for Paint plants".*



## FILTERS FOR PAINTING PLANTS

Filters installed in painting plants must solve three essential problems:

Protecting the work environment

Air pollution

Product quality

Defil is able to provide the most suitable filter for each of these needs.

*For further information see bulletin "Filtering for Paint plants".*



## INSTRUMENTATION

Filter clogging is monitored by instruments that measure load loss. These instruments are differential manometers with data display or suitably calibrated pressure switches that trigger warning lights or sound an alarm.



Since 1985, Defil has been meeting air filtering and dust removal demands for production process, work environment protection and air pollution. In addition to the abovementioned filters, employed in civil, industrial, nuclear, air conditioning, food, chemical, pharmaceutical and cogeneration plants, Defil can offer:

*Housing systems for any type of filter*

*Spare parts for turbines and compressors*

*Filter bags for dedusting units*



# MANAGEMENT SYSTEM CERTIFICATE

Certificato no./Certificate No.:  
CERT-06343-2000-AQ-MIL-SINCERT

Data prima emissione/Initial date:  
01 giugno 2000  
Data di scadenza dell'ultimo ciclo di  
certificazione/Expiry date of last  
certification cycle: 26 maggio 2018  
Data dell'ultima ricertificazione/  
Date of last recertification:  
07 Novembre 2018

Validità/Valid:  
08 novembre 2018 - 26 maggio 2021

Si certifica che il sistema di gestione di/This is to certify that the management system of

**DEFIL S.r.l.**

Via Vincenzo Monti, 173 - 20099 Sesto San Giovanni (MI) - Italy

È conforme ai requisiti della norma per il Sistema di Gestione Qualità/  
has been found to conform to the Quality Management System standard:

**ISO 9001:2015**

Questa certificazione è valida  
per il seguente campo applicativo:

**Produzione e commercializzazione di  
componenti per la filtrazione e  
depolverazione dell'aria per impianti civili  
e industriali**

(EA 29, 18)

This certificate is valid  
for the following scope:

**Manufacture and trade  
of air filtration products  
and dust control components  
for civil and industrial plants**

(EA 29, 18)

Luogo e Data/Place and date:  
**Vimercate (MB), 08 novembre 2018**



ISO 9001:2015  
ISO 9001:2008  
ISO 9001:2004  
ENIR 9001:2008  
PRD 9001:2008  
SGI 9001:2008

Numero di IMB DA per gli schemi di accreditamento:  
SGI, SGI, PRD, ENIR, ISO, GHI, LAF e LAF di IMB SAU  
per gli schemi di accreditamento SGI, SGI, ISO, PRD  
e IMB e di IMB SAU per gli schemi di accreditamento  
LAF, ENIR, LAF e SAU

Per l'Organismo di Certificazione/  
For the Certification Body  
**DNV GL - Business Assurance**

**Via Energy Park, 14  
20871 Vimercate (MB) - Italy**

**Zeno Beltrami**  
Management Representative

La validità del presente Certificato è subordinata al rispetto delle condizioni contenute nel Contratto di Certificazione/  
Lack of fulfillment of conditions as set out in the Certification Agreement may render this Certificate invalid.  
DNV GL Business Assurance Italia S.r.l., Via Energy Park, 14 - 20871 Vimercate (MB) - Italy, TEL:039 68 99 905, www.dnvgli.it



**DEPOLVERAZIONE FILTRAZIONE**

Via Vincenzo Monti 173  
20099 Sesto San Giovanni (MI)  
ITALY

Tel. +39 (2) 24.89.583 / (2) 26.22.43.13

Fax +39 (2) 26.21.065

e-mail: [info@defil.it](mailto:info@defil.it)

[www.defil.it](http://www.defil.it)