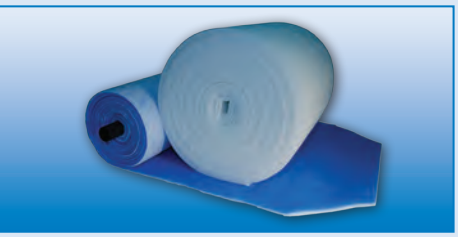
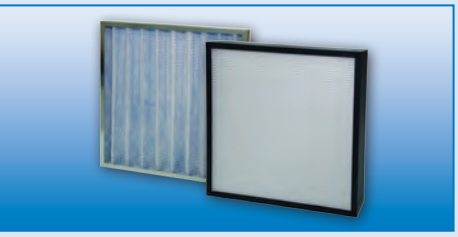
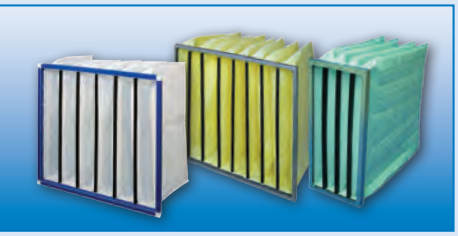
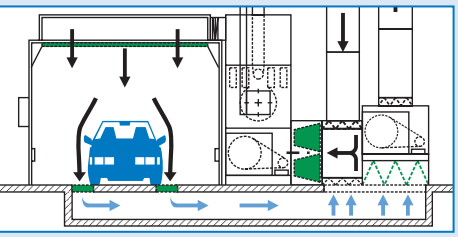
ISO 9001 BUREAU VERITAS Certification

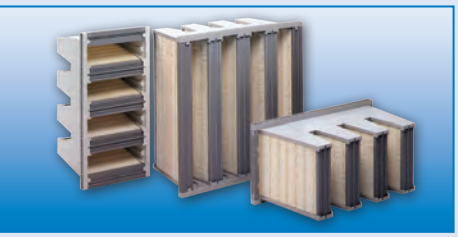
ISO 14001 BUREAU VERITAS Certification











ECOTIP

FILTRACIJA ZRAKA IN TEKOČIN
AIR AND LIQUID FILTRATION

ecofil®

FILTER

predstavitev podjetja Ecotip about Ecotip company

ECOTIP d.o.o. je slovensko podjetje s sedežem v Slovenskih Konjicah. Naša osnovna dejavnost je proizvodnja **ECOFIL®** filtrov v skladu s standardom EN 779:2011.

- Filtrski razred G1–G4 ... filtri za grobo filtriranje v ploščah, rolah in filter vreče;
- Filtrski razred M5–M6 in F7–F9 ... filtri za fino filtriranje v ploščah, rolah in filter vreče;
- V-filtri ... filtri za mikro filtracijo;
- Filtrski razred E10–E12, H13–H14 in U15–U17 ... absolutni filtri z možnostjo izbire preizkusa puščanja (Leak test) in točkovnega preizkusa (Scanning).

ECOFIL® filtre uporabljamo v mnogih državah sveta v različnih pogojih in za različne namene uporabe:

- **ECOFIL®** filtri za prezračevanje in klimatizacijo zraka v tovarnah, zgradbah, bolnišnicah, računalniških centrih, elektronski industriji ...
- **ECOFIL®** filtri za lakirne kabine kot predfiltri, talni filtri, stropni filtri in visoko temperaturno obstojni filtri za sušilce.
- **ECOFIL®** filtri za industrijsko filtracijo oz. odpraševanje (cevni in vrečasti filtri) za različne pogoje in namene uporabe v farmacevtski industriji, cementarnah, proizvodnji apna, železarnah, jeklarnah, tovarnah aluminija, lesni industriji, tovarnah pijač in sladkorja, livarnah, sežigalnicah ...
- **ECOFIL®** filtri za filtracijo tekočin ... galvanizacija, prečiščevanje odpadnih voda, tovarne sladkorja in v ostalih industrijskih panogah.

ECOFIL® filtre proizvajamo v standardnih dimenzijah, le-te pa lahko prilagodimo vašim željam in potrebam, pri čemer vam tudi svetujemo.

S svojimi proizvodi se predstavljamo v tem katalogu z željo, da bi zadostili vašim potrebam. Z veseljem bomo odgovorili na vaša morebitna vprašanja, zato nikar ne odlašajte in stopite v stik z nami.

ECOTIP d.o.o. (Ltd.) is a Slovenian manufacturer with headquarters in Slovenske Konjice. Our main activity is production of **ECOFIL®** filters according to EN 779:2011 standard as follows:

- Filter class G1–G4 ... filters for coarse filtration in pads, rolls and filtering bags.
- Filter class M5–M6 and F7–F9 ... fine filters in sheets and filtering bags.
- Rigid V filters for micro filtration.
- Filter class E10–E12, H13–H14 and U15–U17... Absolute filters with leak and scan tests, on request.

ECOFIL®filters are used in many countries all over the world and applications are as follows:

- **ECOFIL®** filters for ventilation and air-conditioning in plants, buildings, hospitals, computer centers, electronic industry etc.
- **ECOFIL®** filters for spray booths, floor filters, ceiling filters and high temperature resistant filters for driers.
- **ECOFIL®** filters for industrial dust extraction (tube filters and filtering bags) for different industrial applications such as pharmacy, cement plants, lime plants, iron and steel plants, aluminium, wood and beverage industries, sugar factories, foundries, incinerators, etc.
- **ECOFIL®** filters for the filtration of liquids... galvanization, waste-water treatment, sugar factories, and other areas of industry.

ECOFIL® filters are produced in standard dimension which can be adapted according to your individual requirements together with our advice.

Details of our products are available in this catalogue. We hope that they will meet with your approval and if you have any further questions, please do not hesitate to contact us.

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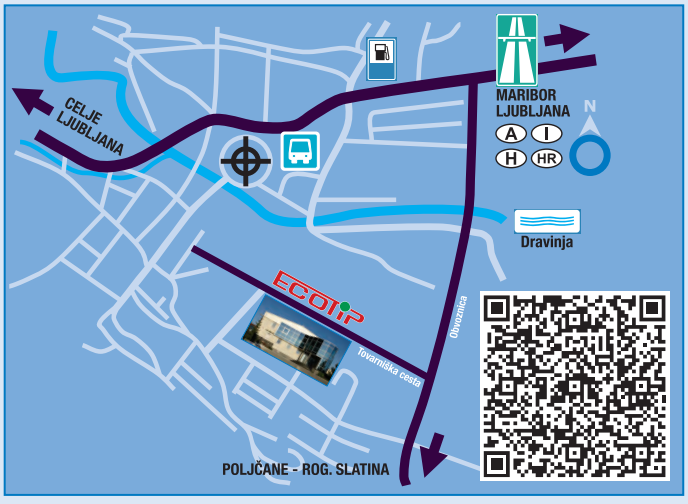

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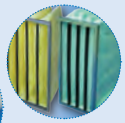
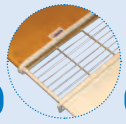
ecofil® FILTER



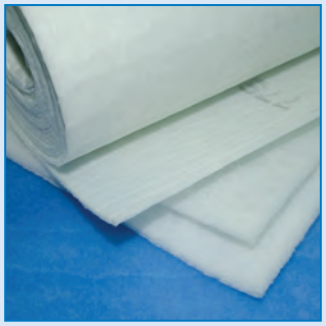
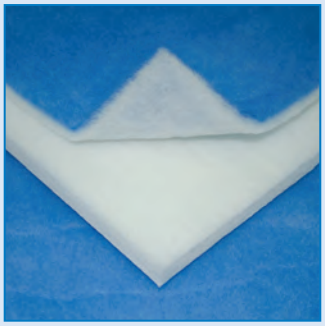
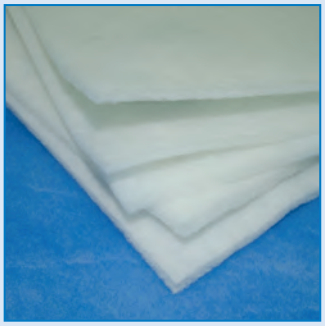
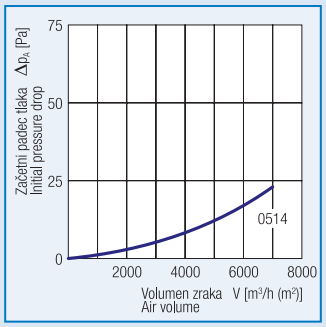
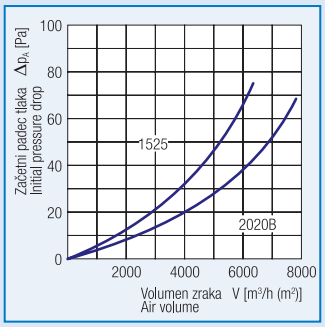
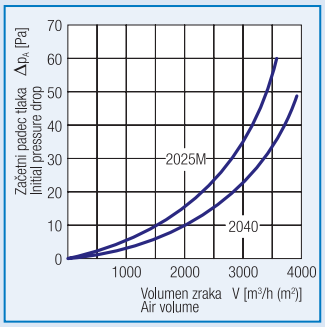




ecofil®	Filtrirni razred Filter class	Material zračnega filtra Air filter material	Nadomestilo za rol filtre Roll filters replacement	Kasetni filtri Cassette filters	Vrečasti filtri Filtering bags	Enote zračnih filtrov Air filter units
				Za vgradnjo v stene in kanale kot tudi za uporabo v enotah za prezračevanje For installing into walls and channels, as well as for air handling units		
Način obratovanja I Uporaba Operation modus I Application	DIN 24185/ EN779	role, plošče rolls, pads	vsi sistemi all systems			
Grobi prašni filtri za filtracijo zelo grobega prahu. Coarse dust filters for the filtration of very coarse dust.	G1 65 %					
Predfiltri za visoke koncentracije prahu. Naprave za prezračevanje in klimatizacijo z majhnimi zahtevami glede kakovosti zraka. Prezračevanje hal, na primer v jeklarnah in železarnah. Pre-filters for high dust concentrations. Ventilators and air-conditioners with low requirements for air quality. Ventilation of large industrial areas, for example in the iron and steel industry.	G2 80 %	0514				
Predfiltri za prezračevanje in klimatizacijo zraka. Filtri za prezračevanje tovarn v procesni industriji, na primer za prezračevanje prostorov, v katerih so motorji, ali za zaščito strojev. Predfiltri za zaščito visokozmogljivih filtrskih naprav. Pre-filters for ventilation and air conditioning. Filters for ventilation of plants in the processing industry, for example, ventilating engine rooms or to protect machines. Pre-filters for protection of high-capacity filtering devices.	G3 90 %	2020B	Sintetika Synthetics 1521R	Kasetni filtri - 30 Cassette filters - 30	FV-30	Pleated 30
Filtri za ločevanje finega prahu pri prezračevalnih napravah ter predfiltri in končni filtri na industrijskem in komercialnem področju, kjer je zahtevana visoka stopnja čistosti zraka. Veleblagovnice, restavracije, zbornice, prezračevanje prostorov, kjer je nameščena občutljiva tehnologija, klinike, sprejemni prostori v bolnišnicah, predfiltri za višjo kakovost zraka. Filters for separating fine dust in air handling units as pre- and final filters in industrial and commercial fields, where a high purity of air is required. Department stores, restaurants, assembly rooms, ventilation of rooms containing sensitive technology, medical clinics, hospital yards, pre-filters for higher quality of air.	G4 ≥ 40 %	1525 2040	Sintetika Synthetics 1525	Kasetni filtri - 40 Cassette filters - 40	FV-40	Pleated 40
	M5 60 %	2025M CC600G-10 VA600G-10		Kasetni filtri - 50 Cassette filters - 50	FV-50 FV-50K	Pleated 50
Filtri za ločevanje finega prahu pri visoko kakovostnih napravah za prezračevanje in klimatizacijo, na primer v industriji računalniške opreme, farmacevtski in fotografski industriji, pri obdelavi občutljivih površin v avtomobilski industriji, bolnišničnih sobah in laboratorijih. Filters for separation of fine dust in high quality air ventilation and air conditioning units, for example, in the computer industry, pharmaceutical and photographic industries, surface-finishing technology in the automobile industry, hospital rooms, and laboratories.	M6 80 %	F70			FV-70	V-filtri V-filters
Fini filtri v sistemih s čistim zrakom, kjer veljajo zelo visoke zahteve po čistosti zraka, filtri za zaščito visoko kakovostne strojne opreme, na primer v montažnih halah, prostorih z občutljivimi mehanizmi, pri proizvodnji hrane, predfiltri za absolutne filtre, brezhibno čiste sobe, na primer v farmacevtski industriji, v proizvodnji mikročipov in v operacijskih dvoranah. Fine filters in systems with clean air and requiring extremely high air purity, filters for the protection of high quality machines, for example, in assembly rooms, rooms with sensitive equipment, in food processing, pre-filters for absolute filters, sterile rooms, for example, in the pharmaceutical industry, in the production of microchips and hospital operating theatres.	F 7 90 %	F85			FV-85	V-filtri V-filters
	F 8 95 %	F90				
	F 9	F95			FV-95	V-filtri V-filters

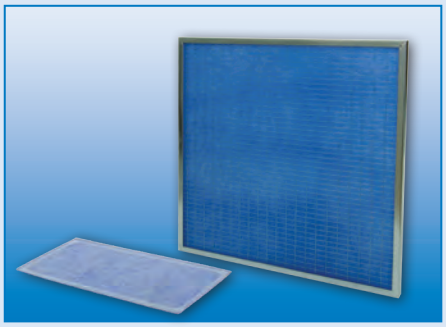
GROBI FILTRI I COARSE FILTERS

FINI FILTRI I FINE FILTERS

Tip | Type	0514	2020B	1525	2040	2025M
Filtrski razred Filter Class..... EN 779:2011	G2	G3	G4	G4	M5
Material Material.....	Sintetika Synthetics	Sintetika Synthetics		Sintetika Synthetics	
Pralno Washable.....	Da Yes	Da Yes		Da Yes	
					
Oblika proizvoda..... Product form	Rola | Plošča Roll | Pad Sintetični termično spojeni vlaknasti flis, samougasljiv v skladu z DIN 53 438, razred F1. Synthetic thermally bonded fibre fleece, self-extinguishing according to DIN 53 438, class F1.	Rola | Plošča Roll | Pad Progresivno strukturiran material, narejen iz termično spojenih sintetičnih vlaken. Samougasljiv v skladu z DIN 53 438, razred F1. Progressively structured material, made of thermally bonded synthetic fibres. Self-extinguishing according to DIN 53 438, class F1.		Rola | Plošča Roll | Pad Večslojni material iz sintetičnih vlaken spremenljive gostote, termično spojen in laminiran. Razporeditev vodi k razvrstitvi prahu po celotni globinski sestavi. Samougasljiv v skladu z DIN 53 438, razred F1. Multilayer of synthetic fibres of varying density that are thermally bonded and laminated. The arrangement leads to grading of dust all over the depth structure. Self-extinguishing according to DIN 53 438, class F1.	
Tehnični podatki o filtrih v skladu z EN 779:2011..... Filter's technical data according to EN 779:2011					
Samougasljiv v skladu z DIN 53 438, razred F1..... Self-extinguishing according to DIN 53 438, Class F1					
Nominalni volumen zraka [m³/h] Nominal air volume	5.400	5.400	3.600	2.520	2.520
Povprečno zadrževanje prahu [%] Average dust arrestance	72	88,10	91,80	94	97,80
Povprečna učinkovitost prašnih delcev [%] Average dust particle efficiency	/	/	/	/	53,20
Začetni padec tlaka [Pa] Initial pressure drop	13	35	46	60	38
Priporočeni končni padec tlaka [Pa] Recommended final pressure drop	250	250	250	250	450
Temperatura obratovanja [°C] Operational temperature	100	100	100	100	100
Globina [mm] Depth	5	20	12	20	12

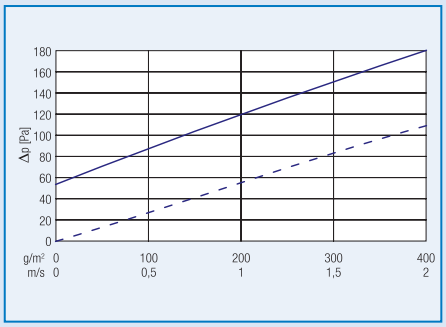
primarna filtracija primary filtration

Kasetni filter Cassette filter — 30R



To so ploščate filter kasete iz filter materiala, debeline 12 mm. Običajno se uporabljajo za prezračevalne naprave v standardnih debelinah 11, 20 in 25 mm.
Flat filter plate cassettes made of filter material, 12 mm thick. They are usually used in air conditioning units at a standard thickness of 11, 20 and 25 mm.

Samougasljiv v skladu z DIN 53 438, razred F1
Self-extinguishing according to DIN 53 438, Class F1



Razred Class		G3
Okvir Frame		Kovinski Metallic
Tip medija Medium type		1525
Zadrževanje Arrestance	[%]	87,50
Učinkovitost Efficiency	[%]	/
Hitrost Velocity	[m/s]	1,50
Δ padec tlaka Δ pressure drop	[Pa]	25
T max T max	[°C]	100

Kasetni filter Cassette filter — 30 ... 40

Plisirana različica filtra, narejena iz »Ecofil® 1525«. Specialna guba daje tej celici visoko propustnost zraka in večjo kapaciteto zadrževanja prahu kot pri ravni izvedbi. Prodajajo se v različnih velikostih - standardih debeline 48 mm in 98 mm.
Pleated version of a filter, made of »Ecofil® 1525«. Special pleating ensures this cell has a high air-flow rate and a greater dust holding capacity than the flat version. It is sold in different sizes - in standard thicknesses of 48 and 98 mm.

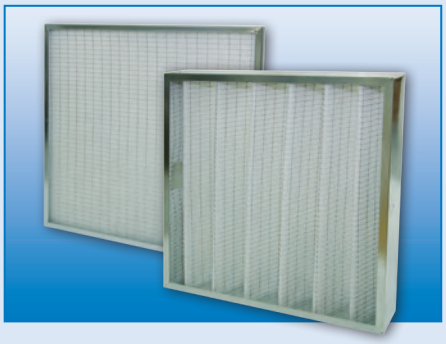
Samougasljiv v skladu z DIN 53 438, razred F1
Self-extinguishing according to DIN 53 438, Class F1

Pretok na filtrsko enoto Air flow [m³/h]

Hitrost zraka Air velocity	1 m/s		1,5 m/s		2 m/s		2,5 m/s	
Dimenzije Dimensions	h=50	h=100	h=50	h=100	h=50	h=100	h=50	H=100
287×592 [mm]	950	1150	1400	1700	1900	2300	2400	2900
490×592 [mm]	1600	2000	2450	2950	3250	3950	4050	4900
592×592 [mm]	1950	2400	2950	3550	3900	4750	4950	5900
287×287 [mm]	450	600	700	850	950	1150	1250	1450
Δp [Pa]	23		39		62		95	

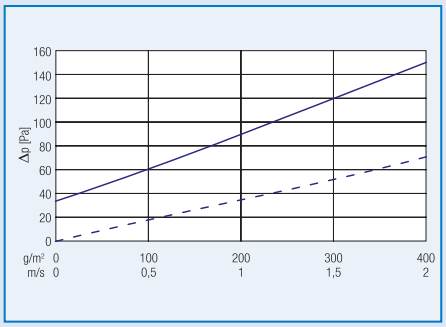
Razred Class		G3
Okvir Frame		Kovinski Metallic
Tip medija Medium type		1525
Zadrževanje Arrestance	[%]	87,50
Učinkovitost Efficiency	[%]	/
Hitrost Velocity	[m/s]	1,50
Δ padec tlaka Δ pressure drop	[Pa]	31
T max T max	[°C]	100

Kasetni filter Cassette filter — 50R ... 50



Filter kasete so narejene iz visoko učinkovitega filtra v razredu M5. V zahtevni predfiltraciji jih uporabljamo v ravni ali plisirani različici. Prodajajo se v standardnih in nestandardnih velikostih in v različnih debelinah.
Filter cells are made of high efficiency medium in M5 classes. In demanding preliminary filtration they are used in either the flat version, or in the pleated version. They are sold in standard and non-standard sizes, and in various thicknesses.

Samougasljiv v skladu z DIN 53 438, razred F1
Self-extinguishing according to DIN 53 438, Class F1



Razred Class		M5
Okvir Frame		Kovinski Metallic
Tip medija Medium type		2025M
Zadrževanje Arrestance	[%]	96
Učinkovitost Efficiency	[%]	48
Hitrost Velocity	[m/s]	1,50
Δ padec tlaka Δ pressure drop	[Pa]	55
T max T max	[°C]	100

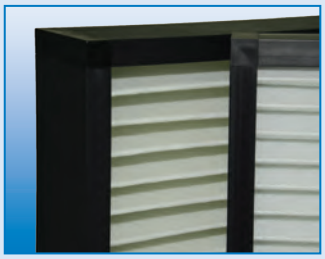
Razred Class		M5
Okvir Frame		Kovinski Metallic
Tip medija Medium type		2025M
Zadrževanje Arrestance	[%]	96
Učinkovitost Efficiency	[%]	48
Hitrost Velocity	[m/s]	1,50
Δ padec tlaka Δ pressure drop	[Pa]	49
T max T max	[°C]	100

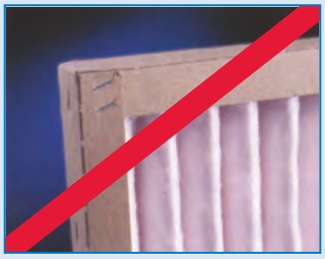
funkcionalnost in kakovost functionality & quality

Kasetni filtri ECOTIP Ecofil® v filtrskih razredih G4, M5–M6 in F7–F9/ EN 779:2011 s pomočjo večslojnih vlaknastih flisov zagotavljajo učinkovito čiščenje zraka z majhnimi tlačnimi razlikami. Nov tip okvirja iz fiberplasta omogoča dobro tesnjenje filtra, visoko obstojnost, natančnost in ekološko odstranjevanje ostankov s sežiganjem.

ECOTIP Ecofil® filter cells in the filter classes G4, M5–M6 and F7–F9/ EN 779:2011 guarantee effective air filtration and low pressure differences with the aid of a multilayer synthetic micro spun bond. This new type of frame made of fibreplast enables a good sealing of the filter medium, high stiffness, and dimensional stability, as well as the possibility of burning with no residue.

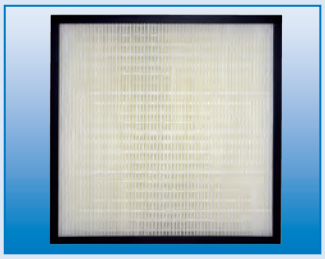
Visoka kakovost izdelave — High production processing standard

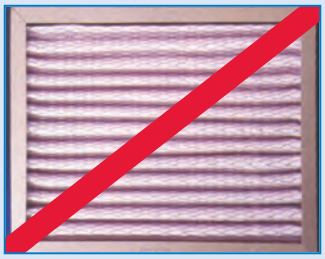




ECOFIL® kasetni filtri so odporni proti vlagi, odbijajo vodo in so mikrobiološko inertni. Uporaba sintetičnih materialov v skladu z zahtevami VDI 6022 omogoča higiensko neoporečno obratovanje filtra.
ECOFIL® filter cells are resistant to humidity, waterproof and microbiologically inert. The application of synthetic materials in compliance with VDI 6022 enables a perfect, hygienic filter operation.

Minimalne tlačne razlike — Minimal pressure differences



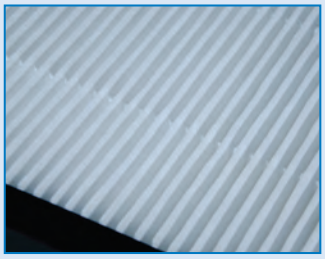


ECOTIP Ecofil® kasetni filtri imajo trikrat večjo površino kot običajni. Zaradi tega so hitrosti skozi filtrski medij nižje, tlačne razlike pa manjše. Stroški energije so tako bistveno nižji.
The surface of ECOTIP Ecofil® filter cells is triple that of the ordinary ones. It causes lower filter medium velocity, and smaller pressure differences. The energy costs are, therefore, essentially lower.

Visoka varnost filtra — High filter safety

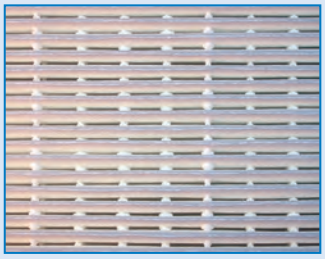
Zaradi uporabe »hot-melt« lepljenja, ki ne prepušča delcev, je tesnost med filtrskim medijem in okvirjem maksimalna. To omogoča čiščenje zraka tudi na robnem predelu filtra.
The use of hot-melt adhesion prevents particles flowing through and means maximal tightness between the filter medium and the frame. It enables air to also flow through the edges of the filter.

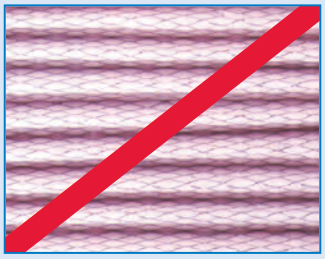
Optimirana geometrija plisejev — Optimized geometry of the pleating system



Bistveni prednosti ECOTIP Ecofil® kasetnih filtrov sta enakomernost in dostopnost do filtrskega medija. Pliseji, položeni v obliki črke »V«, omogočajo maksimalen globinski učinek.
The essential advantages of the ECOTIP Ecofil® filter cells are uniformity, and accessibility to the filter medium. Pleatings in “V” form enable maximal deep action.

Maksimalna skladnost z okoljem — Maximal enviromental compatibility





Vse komponente Ecofil® filtra so izdelane iz kombinacije čistega poliestra in poliolefina. Filtrski mediji so brez veziv, topil ali barvil.
All components of the Ecofil® filter are made of a combination of pure polyester and polyolefin. Filter media are free of fixing agents, solvents or colouring agents.

ecofil® panel filter

| 20 | 25 | 48 | 98 | - G4/M5

Opis

- Panelni filter Ecofil® z gosto plisiranim filtrskim medijem, izdelan iz sintetične mikro preje.
- Možnost recikliranja s sežiganjem in možnost izvedbe brez kovin.
- Nov sistem plisiranja Ecofil® z načinom vročega spajanja za izvedbo z nizkim začetnim uporom.
- Posebna konstrukcija z okvirjem iz lepenke, kovine ali lesa in dodatno ojačitvijo.

Description

- Ecofil® Panel Filter with closely pleated filter media made of synthetic micro spun bond.
- Recycling by incineration possible, metal free design possible.
- New Ecofil® pleating system using hot-melt traces for low resistance performance.
- Special designs with cardboard, metal, or wooden frame and additional special reinforcing as well.

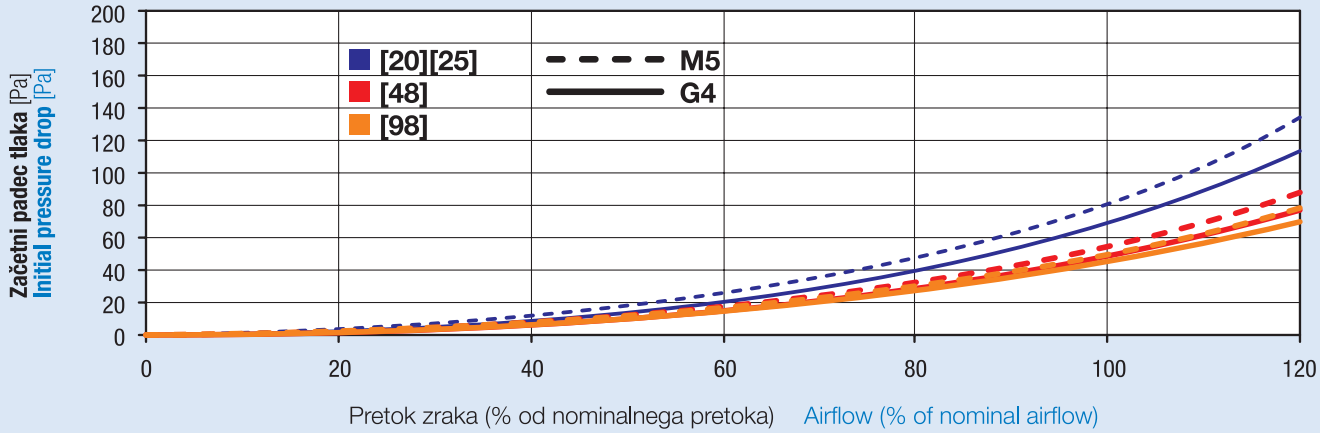
Tip Type	Velikost [Š×V×G*] mm Size [W×H×D*] mm	Površina filtra (m²) Filter Area (m²)				Območje nominalnega pretoka zraka Range of nominal airflow (100 %–125 %)
		20*	25*	48*	98*	
R40 | R50	495×394×[G/D]*	1,00	1,10	1,86	2,57	1760–2190 m³/h
R40 | R50	495×495×[G/D]*	1,15	1,26	2,34	3,14	2200–2750 m³/h
R40 | R50	592×592×[G/D]*	1,44	1,80	3,39	4,36	3200–4000 m³/h
R40 | R50	622×394×[G/D]*	1,00	1,30	2,34	3,03	2200–2750 m³/h
R40 | R50	622×495×[G/D]*	1,09	1,60	2,94	3,74	2800–3500 m³/h

Dobava možna v različnih velikostih.
With different sizes available.

Tehnični podatki — Technical data

Filtrirni razred | Filter Class		**EN 779:2011**	**G4**	**M5**
Povprečna stopnja filtracije (sintetični prah) | Average arrestance (synthetic dust)			94 %	95 %
Povprečna učinkovitost (atmosferski prah) | Average efficiency (atmospheric dust)			37 %	45 %
Začetni padec tlaka pri 100 % nominalnem pretoku zraka | Initial pressure drop at 100 % nominal airflow	[G/D] =	20, 25 (mm)	70 Pa	80 Pa
	[G/D] =	48 (mm)	50 Pa	55 Pa
	[G/D] =	98 (mm)	45 Pa	50 Pa
Končni padec tlaka pri 100 % nominalnem pretoku zraka (prip.) **| Final pressure drop at 100 % nominal airflow** (recomm.)		20, 25, 48, 98 (mm)	250 Pa	450 Pa
Število slojev | Number of layers			1	1
Maksimalna obratovalna temperatura | Maximal operation temperature			80 °C	80 °C
Maksimalna obratovalna vlažnost (relativna vlaga) | Maximal operation moisture (relative humidity)			100 %	100 %
Vnetljivost | Inflammability		**DIN 53 438**	**F1**	**F1**

Tehnični podatki so bili zbrani po naših najboljših močeh. Odgovornosti za podatke ne sprejemamo. Pridržujemo si pravico do tehničnih sprememb.
Technical data are being compiled to the best of our knowledge. Responsibility cannot be accepted. We reserve the right of technical modifications.



ecofil® panel filter

ecofil® FILTER

| 20 | 25 | 48 | 98 | - M6/F7/F8/F9

Opis

- Panelni filter Ecofil® z gosto plisiranim filtrskim medijem, izdelan iz sintetične mikro preje.
- Možnost recikliranja s sežiganjem in možnost izvedbe brez kovin.
- Nov sistem plisiranja Ecofil® z načinom vročega spajanja za izvedbo z nizkim začetnim uporom.
- Posebna konstrukcija z okvirjem iz plastike, lepenke, kovine ali lesa in dodatno ojačitvijo.

Description

- Ecofil® Panel Filter with closely pleated filter media made of synthetic micro spun bond.
- Recycling by incineration possible, metal free design possible.
- New Ecofil® pleating system using hot-melt traces for low resistance performance.
- Special designs with plastics, cardboard, metal, or wooden frame and additional special reinforcing as well.

Tip Type	Velikost [Š×V×G*] mm Size [W×H×D*] mm	Površina filtra (m²) Filter Area (m²)				Območje nominalnega pretoka zraka Range of nominal airflow (100 %–125 %)
		20*	25*	48*	98*	
R70 | R85 | R90	495×394×[G/D]*	1,00	1,10	1,86	2,57	1760–2190 m³/h
R70 | R85 | R90	495×495×[G/D]*	1,15	1,26	2,34	3,14	2200–2750 m³/h
R70 | R85 | R90	592×592×[G/D]*	1,44	1,80	3,39	4,36	3200–4000 m³/h
R70 | R85 | R90	622×394×[G/D]*	1,00	1,30	2,34	3,03	2200–2750 m³/h
R70 | R85 | R90	622×495×[G/D]*	1,09	1,60	2,94	3,74	2800–3500 m³/h

Dobava možna v različnih velikostih.
With different sizes available.

Tehnični podatki — Technical data

Filtrirni razred | Filter Class	**EN 779:2011**	**M6**	**F7**	**F8**
Povprečna stopnja filtracije (sintetični prah) | Average arrestance (synthetic dust)		95 %	98 %	99 %
Povprečna učinkovitost (atmosferski prah) | Average efficiency (atmospheric dust)		65 %	85 %	95 %
Začetni padec tlaka pri 100 % nominalnem pretoku zraka | Initial pressure drop at 100 % nominal airflow	[G/D] = 20 (mm)	90 Pa	120 Pa	140 Pa
	[G/D] = 25 (mm)	90 Pa	110 Pa	125 Pa
	[G/D] = 48 (mm)	60 Pa	80 Pa	100 Pa
	[G/D] = 98 (mm)	55 Pa	70 Pa	80 Pa
Končni padec tlaka pri 100 % nominalnem pretoku zraka (prip.) **| Final pressure drop at 100 % nominal airflow** (recomm.)	20, 25, 48, 98 (mm)	450 Pa	450 Pa	450 Pa
Število slojev | Number of layers		1	1	1
Maksimalna obratovalna temperatura | Maximal operation temperature		80 °C	80 °C	80 °C
Maksimalna obratovalna vlažnost (relativna vlaga) | Maximal operation moisture (relative humidity)		100 %	100 %	100 %
Vnetljivost | Inflammability	**DIN 53 438**	**F1**	**F1**	**F1**

Tehnični podatki so bili zbrani po naših najboljših močeh. Odgovornosti za podatke ne sprejemamo. Pridržujemo si pravico do tehničnih sprememb.
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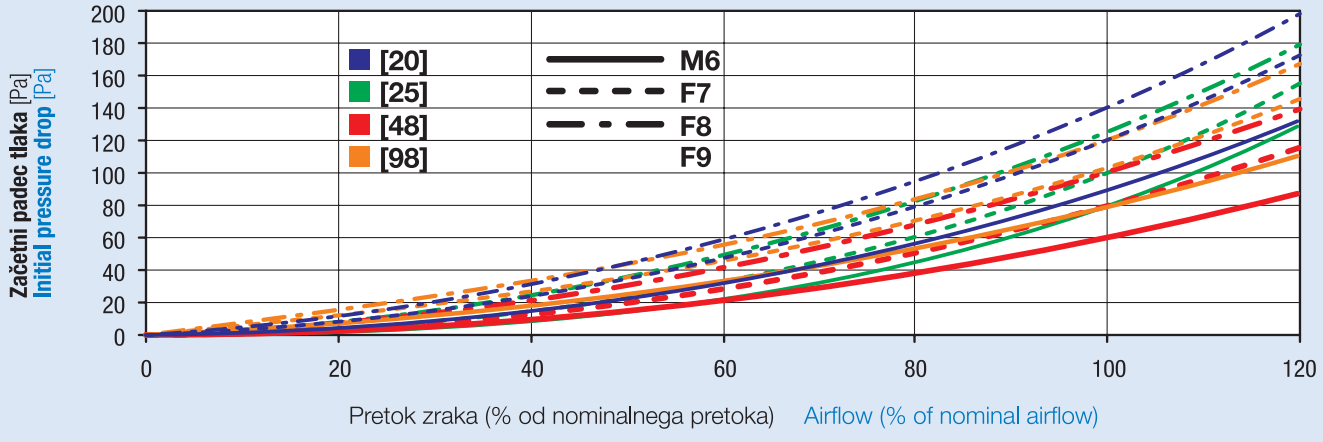
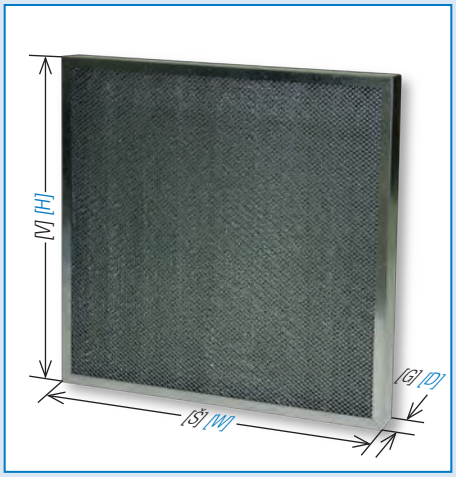


ecofil® panel filter M

GA/ALU | INO/INOX

Opis

- Večslojni kovinski varjeni Ecofil® panelni filter
- Obojestranska ekspandirana kovinska mreža
- Obnovljiv, pralen
- GA ali ALU z galvaniziranim kovinskim okvirjem Ecofil® in aluminijastim večslojnim polnilom
- INO ali INOX z jeklenim okvirjem Ecofil® in nerjavečim večslojnim polnilom



Description

- Ecofil® Panel Filter with welded metal multilayers
- Expanded metal screen on both sides
- Regenerable, washable
- GA or ALU with galvanized Ecofil® steel frame and aluminium multilayers
- INO or INOX with Ecofil® steel frame and stainless steel multilayers

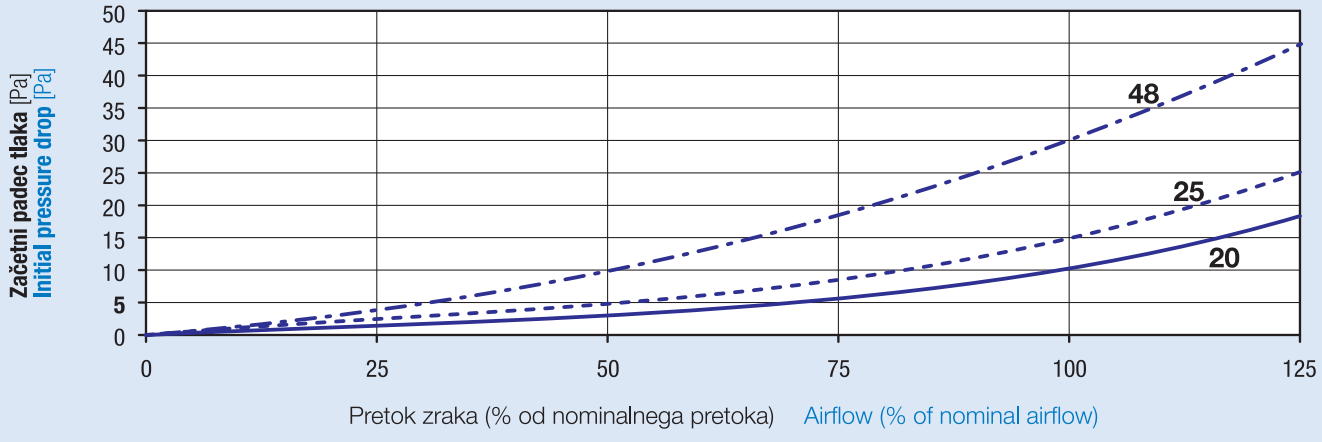
Tip Type		Velikost [Š×V×G] mm Size [W×H×D] mm	Filtrirni razred Filter class	Območje nominalnega pretoka zraka Range of nominal airflow (100 %–125 %)
GA/ALU INO/INOX	20 592 592	592×592×20	**G2**	1900–2400 m³/h
GA/ALU INO/INOX	25 592 592	592×592×25	**G2**	1900–2400 m³/h
GA/ALU INO/INOX	48 592 592	592×592×48	**G3**	1900–2400 m³/h

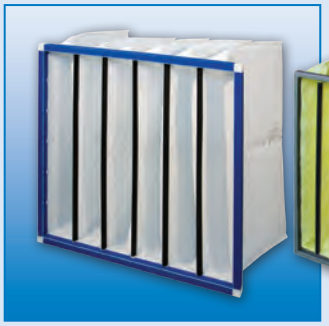
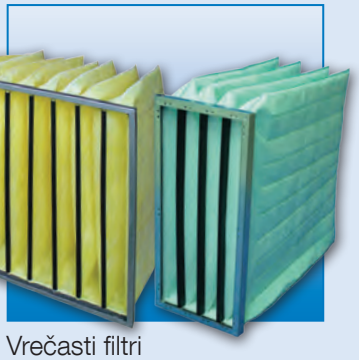
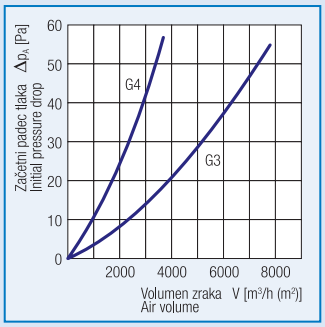
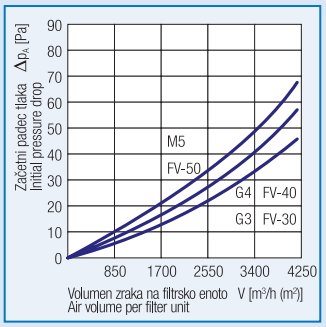
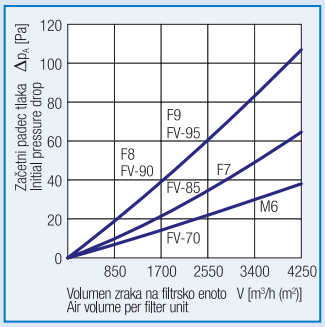
Dobava možna v različnih velikostih.
With different sizes available.

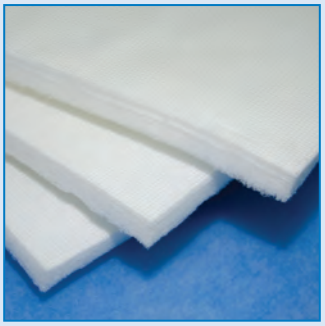
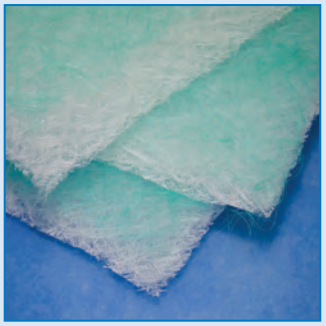
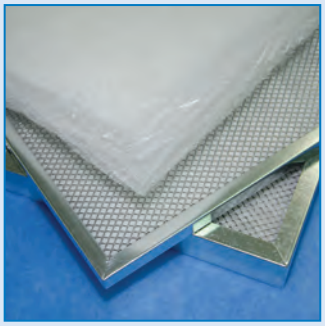
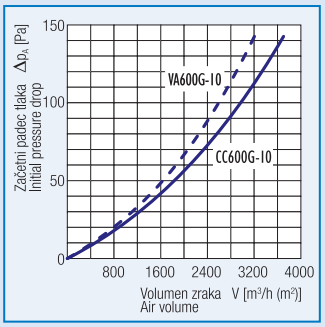
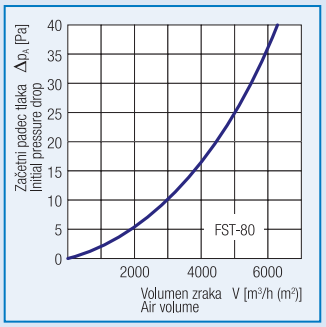
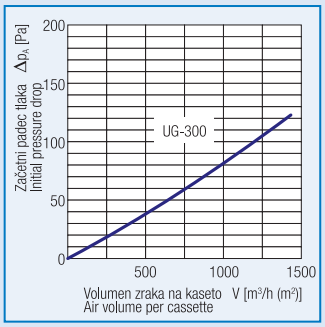
Tehnični podatki | Technical data

Filtrirni razred | **Filter Class**	**EN 779:2011**	**G2**	**G2**	**G3**
Povprečna stopnja filtracije (sintetični prah) | **Average arrestance (synthetic dust)**		65 %	70 %	80 %
Povprečna učinkovitost (atmosferski prah) | **Average efficiency (atmospheric dust)**		–	–	–
Začetni padec tlaka pri 100 % nominalnem pretoku zraka | **Initial pressure drop at 100 % nominal airflow**		10 Pa	15 Pa	30 Pa
Končni padec tlaka pri 100 % nominalnem pretoku zraka (priporočljivo) | **Final pressure drop at 100 % nominal airflow** (recommended)		400 Pa	400 Pa	400 Pa
Globina filtra | **Depth of filter**		20 mm	25 mm	48 mm
Maksimalna obratovalna temperatura | **Maximal operation temperature**		400 °C	400 °C	400 °C
Maksimalna obratovalna vlažnost (relativna vlaga) | **Maximal operation moisture (relative humidity)**		100 %	100 %	100 %
Vnetljivost | **Inflammability**	**DIN 53 438**	**F1**	**F1**	**F1**

Tehnični podatki so bili zbrani po naših najboljših močeh. Odgovornosti za podatke ne sprejemamo. Pridržujemo si pravico do tehničnih sprememb.
Technical data are being compiled to the best of our knowledge. Responsibility cannot be accepted. We reserve the right of technical modifications.



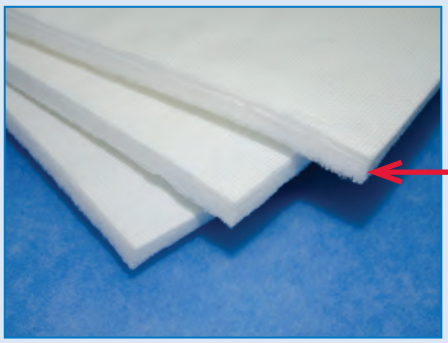
Tip I Type	Rol filter Roll filter	Filter vreče Filtering bags					
Filtrski razred Filter Class..... EN 779:2011	G3 ..... G4	G3 ..... G4 ..... M5			M6 ..... F7 ..... F8/9		
Material Material.....	Sintetika/naravna vlakna Synthetics/Natural fibre	Sintetika Synthetics			Sintetika Synthetics		
Pralno Washable.....	Ne No	Ne No			Ne No		
							
Oblika proizvoda ..... Product form	Rola | Plošča Roll | Pad Vlaknasti flis iz sintetike in naravnih vlaken ter s kaširano, nerazteglјivo mrežico. Brez lepljive snovi za zadrževanje prahu. Samougasljiv v skladu z DIN 53 438, razred F1/K1. Fibre fleece made from synthetic fibres, natural fibres and a stiff, non-expanding mesh. Without adhesive trapping the dust. Self-extinguishing according to DIN 53 438, class F1/K1.	Vrečasti filtri Filtering bags Filtri so narejeni iz sintetičnih vlaken, oblikovanih v filter vreče, ki so zrakotesno montirane v okvir iz plastike ali galvanizirane kovine. Koničasta oblika zagotavlja visoko zmogljivost vreč pri zadrževanju prahu. Filters are made from synthetic fibres, formed into filtering bags, mounted air-tight into a frame made of plastic or galvanized metal. The tapered design guarantees a high dust holding capacity of the bags.			Vrečasti filtri Filtering bags Filtri iz sintetičnih vlaken v obliki posebno oblikovanih koničastih vreč omogočajo enakomeren pretok zraka. Vreče so nepropustno montirane v okvir iz galvanizirane kovine brez uporabe lepila. Filters made from synthetic fibres and specially designed tapered bags allow smooth air flow. The bags are mounted air-tight into a frame made of galvanized metal, without using glue.		
Tehnični podatki o filtrih v skladu z EN 779:2011..... Filter's technical data according to EN 779:2011									
Samougasljiv v skladu z: DIN 53 438, razred F1..... Self-extinguishing according to DIN 53 438, Class F1							
Nominalni volumen zraka [m³/h] Nominal air volume	7.200	3.600	3.400	3.400	3.400	3.400	3.400	3.400
Povprečno zadrževanje prahu [%] Average dust arrestance	85	90	89,20	93	96	98	>98,10	>99
Povprečna učinkovitost prašnih delcev [%] Average dust particle efficiency	/	/	/	/	60,10	77,20	86	92,10
Začetni padec tlaka [Pa] Initial pressure drop	50	60	30	40	60	68	83	86
Priporočeni končni padec tlaka [Pa] Recommended final pressure drop	250	250	250	250	450	450	450	450
Temperatura obratovanja [°C] Operational temperature	80	80	100	100	100	80	80	80
Globina [mm] Depth	10	10	360	360	600	600	600	600

Tip | Type	CC600G-10 VA600G-10	FST-80	UG-300
Filtrski razred Filter Class..... EN 779:2011	M5 ..... M5	G2	G4 ..... M5
Material Material.....	Sintetika Synthetics	Steklena vlakna Glass fibre	Steklena vlakna Glass fibre
Pralno Washable.....	Ne No	Ne No	Ne No
			
Oblika proizvoda..... Product form	Rola | Plošča Roll | Pad Termično spojena sintetična vlakna s progresivno labirintno strukturo. Material filtrov CC600G-10 in VA600G-10 je prepojen z lepljivo snovjo za zadrževanje prahu. Samougasljiv v skladu z DIN 53 438, razred F1. Thermally bonded synthetic fibres with progressive labyrinth structure. The filter material CC600G-10 and VA600G-10 is soaked with a dust-trapping adhesive. Self-extinguishing according to DIN 53 438, class F1.	Rola | Plošča Roll | Pad Progresivno strukturiran material, narejen iz termično spojenih sintetičnih vlaken. Samougasljiv v skladu z DIN 53 438, razred F1. Progressively structured material made of thermally bonded synthetic fibres. Self-extinguishing according to DIN 53 438, class F1.	Kaseta Cassette Filtrske plasti, ki so sestavljene iz čvrsto vezanih vlaken. Temperaturno obstojna filtrska plast UG-300 s širokim okvirjem iz aluminija na obeh straneh. Filter layers made of firmly bonded fibres. The temperature-resistant filter layer UG-300 framed by a wide strip of aluminium metal on both sides.
Tehnični podatki o filtrih v skladu z EN 779:2011..... Filter's technical data according to EN 779:2011			
Samougasljiv v skladu z: DIN 53 438, razred F1..... Self-extinguishing according to DIN 53 438, Class F1			
Nominalni volumen zraka [m³/h] Nominal air volume	1.000 1.000	8.000–10.000	1.000 1.000
Povprečno zadrževanje prahu [%] Average dust arrestance	97,80 97,50	93–97 velja za razpršen barvni prah refer to sprayed paint mist	93 96
Povprečna učinkovitost prašnih delcev [%] Average dust particle efficiency	50 56,36	/	77,20 55
Začetni padec tlaka [Pa] Initial pressure drop	23 25	25	70 85
Priporočeni končni padec tlaka [Pa] Recommended final pressure drop	450 450	250	250 450
Temperatura obratovanja [°C] Operational temperature	100 100	150	300 300
Globina [mm] Depth	20 22	80	14 48

sistem uporabe filtrov filter application system

Stropni filter CC600G-10

Stropni filter je impregniran s posebno lepljivo tekočino in se uporablja kot stropni filter za pretok zraka od zgoraj navzdol v lakirni kabini.



Ceiling filter CC600G-10

Ceiling filter is impregnated with a special adhesive liquid and is used as a ceiling filter for air flow from top to bottom in a spray booth.

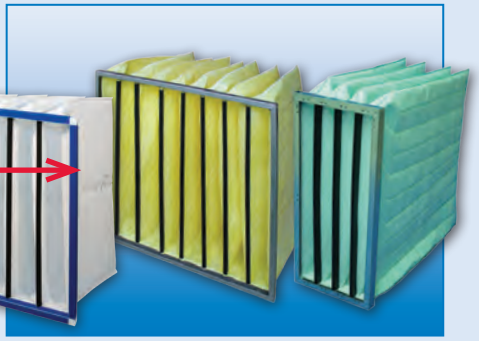
ecofil

Material za filtre je proizveden iz toplotno spojenih poliestrskih vlaken s specifično progresivno labirintno strukturo.

Filter material is made from thermally bonded polyester fibres with a specific progressive labyrinth structure.

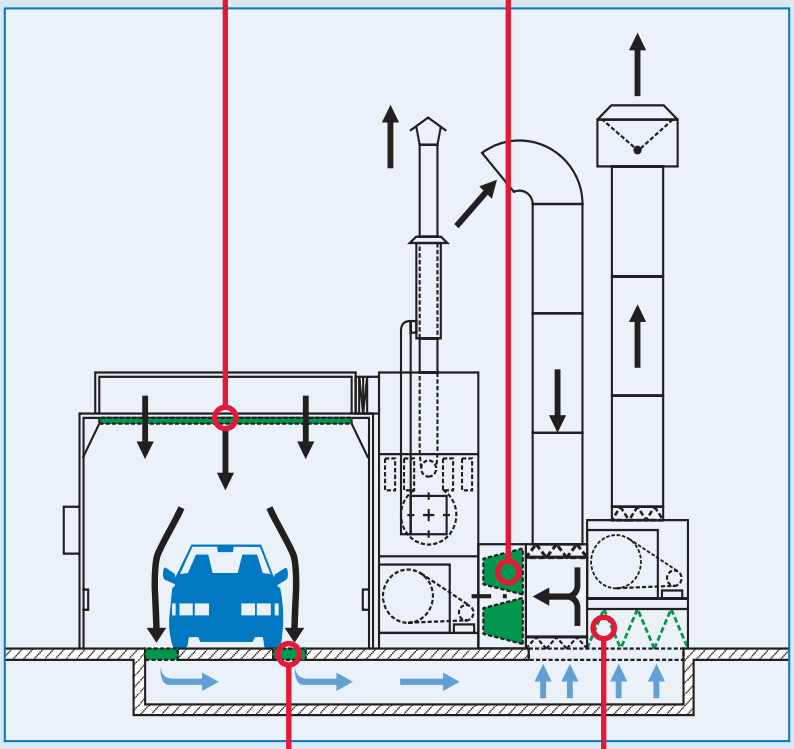
Vrečasti in kasetni filtri

Vrečasti in kasetni filtri so dobavljivi v različnih izvedbah in kakovosti filtracije. Filtrirni razred G2–G4, M5–M6 in F7–F9 (EN 779:2011).



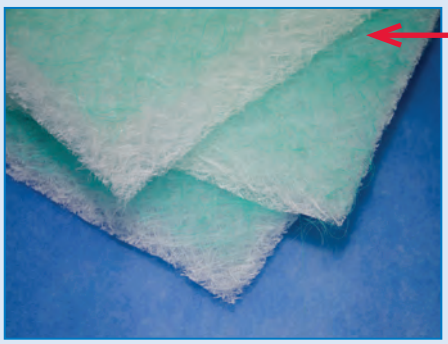
Filtering bags and cassettes

Filtering bags and cassette filters are delivered in different sizes and filtration quality. Filter classes G2–G4, M5–M6 and F7–F9 (EN 779:2011).



Paintstop filter is designed exclusively for retention of superfluous paint - solid paint particles in spray booths. It is made from continuous filament glass fibre with open weave pattern.

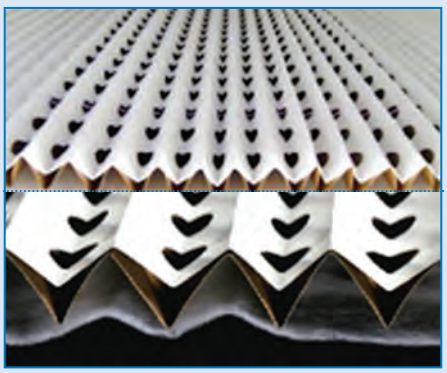
Paintstop roll filter FST-80



Talni filter FST-80

Talni filter je oblikovan izključno za zadrževanje odvečne razpršene barve - trdih delcev v lakirni kabini. Izdelan je iz neprekinjenih filamentnih vlaken s progresivno netkano strukturo.

Papirnati filtri z veliko akumulacijo



Large accumulation paper filters

Filter materials for preliminary filtration are delivered in different dimensions or filter pads, having a progressive labyrinth structure.

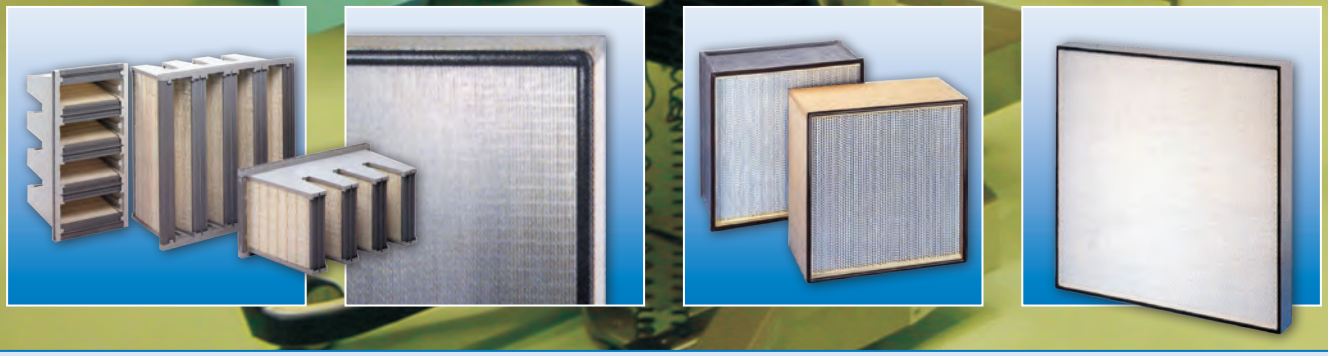
Pre-filter

Predfilter

Filter materiali za predfiltracijo je dobavljiv v različnih dimenzijah ali filter ploščah, ki imajo progresivno labirintno strukturo.

ecofil®

F I L T E R



ultra filtracija ultra filtration

Kompaktni filtri
Compact filters

Filtrski razred ... Filter class

Q, R, S
E10–E12, H13–H14 & U15–U17

Papirji iz mikro steklenih vlaken
Micro glass-fibre paper

Pralno Washable ..... Ne No

Element Element

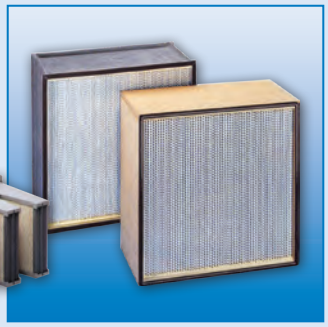
Separatorski sistem
Separator system

Filtrski razred ... Filter class

Q, R, S
E10–E12, H13–H14 & U15–U17

Papirji iz mikro steklenih vlaken
Micro glass-fibre paper

Pralno Washable ..... Ne No



Element Element

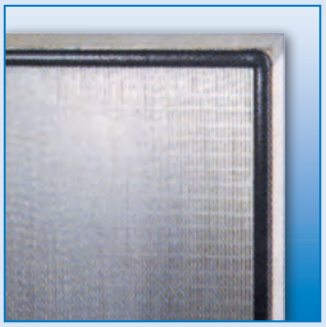
Mini plisirni sistem
Mini-pleat system

Filtrski razred ... Filter class

Q, R, S
E10–E12, H13–H14 & U15–U17

Papirji iz mikro steklenih vlaken
Micro glass-fibre paper

Pralno Washable ..... Ne No



Element Element

Tehologija čistih sob
Clean room technology

Filtrski razred ... Filter class

Q, R, S
E10–E12, H13–H14 & U15–U17

Papirji iz mikro steklenih vlaken
Micro glass-fibre paper

Pralno Washable ..... Ne No

Element Element

HEPA filter

Absolutni filter Absolute filter
Preizkus po DIN 24184: razpršeno parafinsko olje
Test according to DIN 24184: sprayed paraffin oil
Preizkus puščanja Leak rate test

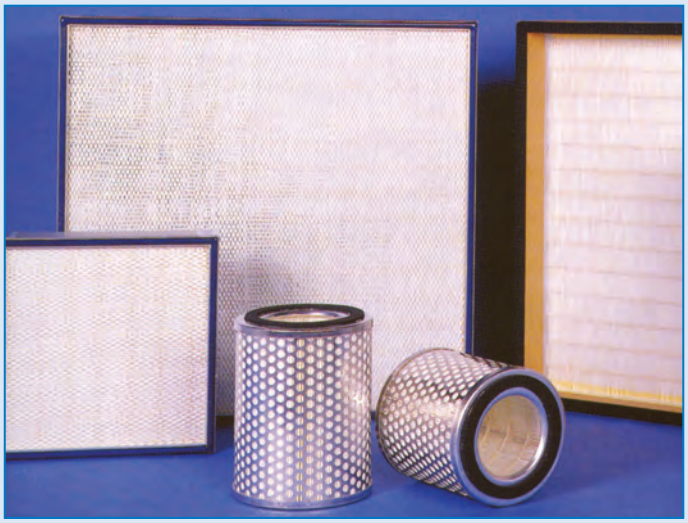
Tip Type Star Old	Tip Type Nov New	Učinkovitost Efficiency Star Old	Učinkovitost Efficiency Nov New
Q	E10 EPA	≥ 85 %	≥ 85 %
R	E11 EPA	≥ 98 %	≥ 95 %
S	E12 EPA	≥ 99,97 %	≥ 99,5 %
S	H13 HEPA	≥ 99,997 %	≥ 99,95 %
S	H14 HEPA	≥ 99,999 %	≥ 99,995 %

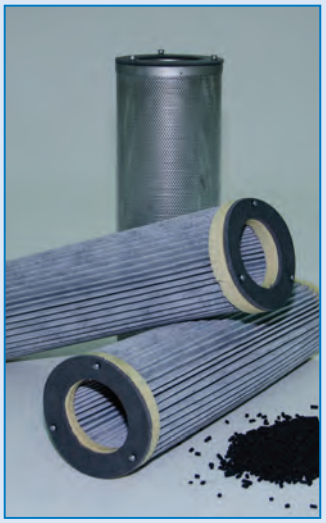
ULPA filter

Visoko učinkovit absolutni filter
High efficient absolute filter
Preizkus po DIN 24183/EN 1822: DEHS
Test according to DIN 24184/EN 1822: DEHS
Točkovni preizkus Scanning test

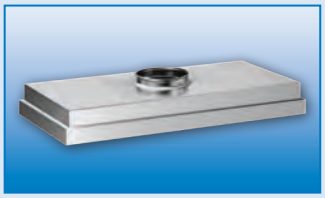
Tip Type Nov New	Učinkovitost Efficiency
U15 ULPA	≥ 99,9995 %
U16 ULPA	≥ 99,99995 %
U17 ULPA	≥ 99,999995 %

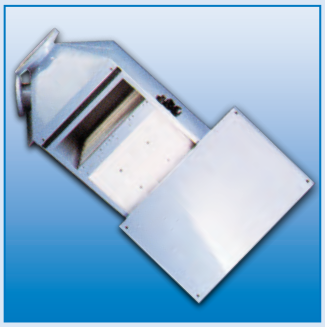
ECOFIL® absolutni filtri so membranski filtri z zelo veliko sposobnostjo filtriranja 0,3 mikronskih delcev.
Uporaba: v klima napravah kot končna stopnja filtracije v farmaciji, operacijskih dvoranah, elektroniki, jedrskih centralah, mikrobiologiji ...
ECOFIL® absolute filters are membrane filters with a high filtration efficiency of 0.3 micron particles.
Application: in air handling units as the final stage of filtration in pharmacy, operating theatres, electronics, nuclear power plants, microbiology, etc.



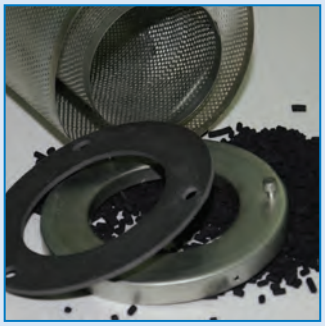


Filtrska oprema
Filter equipment

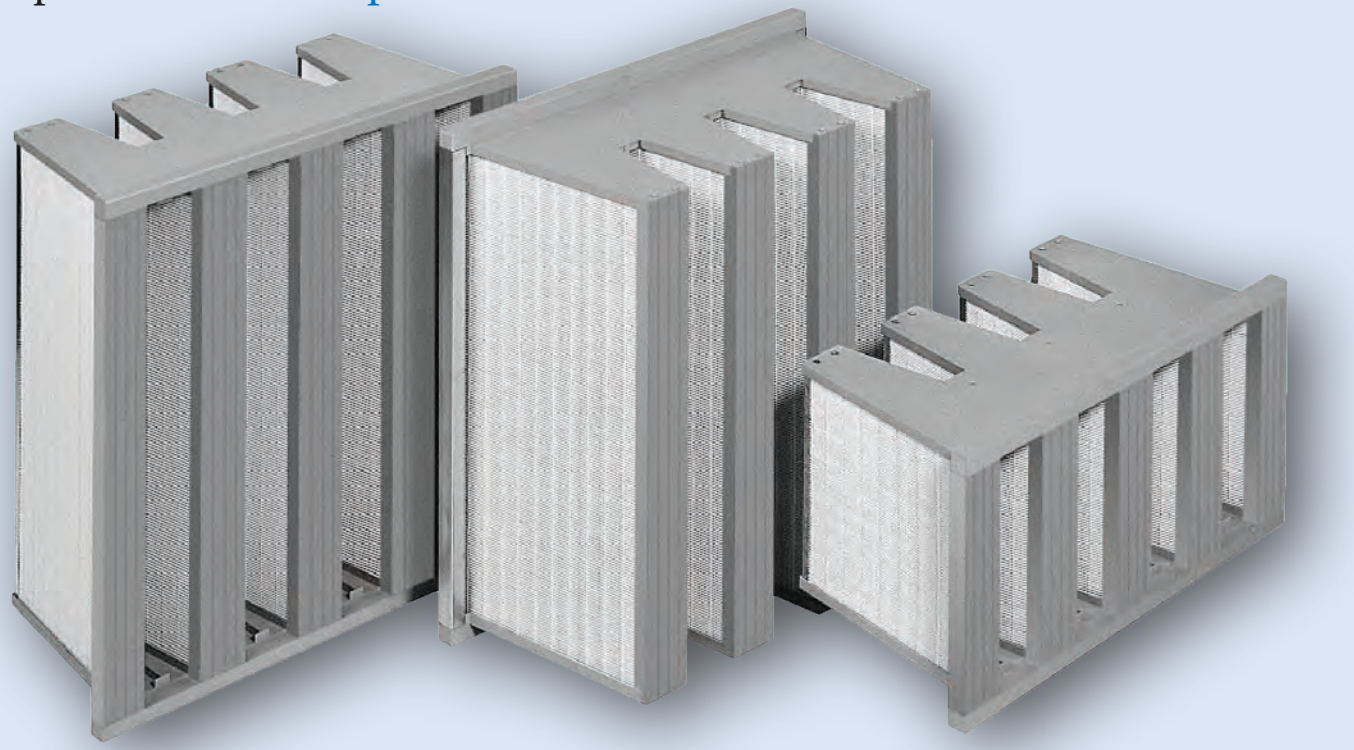




Ogljeni filtri
Carbon filters



kompaktni filtri compact filters



Ecofil® fino prašni filter

Ecofil® FP filtri za ločevanje finega prahu preprečujejo onesnaževanje zraka s prahom, dimom, paro, sajami, cvetnim prahom, bakterijami, itd. Uporabljajo se kot predfiltri ali ko filtri, in sicer v napravah za prezračevanje in klimatizacijo prostorov.

Ecofil® FP filtri so vsestransko uporabni, še posebej v primerih, ko moramo zagotavljati **dolgo življenjsko dobo, varnost in prilagodljivost**. Filtri so na voljo v 8 različicah glede na stopnjo zadržljivosti, v 4 glede na višino, v 2 glede na globino ter v 2 izvedbah (NT/HT).

Podatki

Obratovalna temperatura:
- Model »NT«: <75 °C
- Model »HT«: <120 °C (ne velja za FP-65)

Tlačne razlike:
- priporočen končni padec tlaka: 450 Pa
- maksimalni končni padec tlaka: 800 Pa
- maksimalna vzdržljivost: >1500 Pa

Dopustna relativna vlažnost zraka:
- FP-65: <85 %
- FP-M6 do FP-F9 <100 %

Materiali

Filtrski medij:
- FP-65: 18 m^2 celulozna vlakna
- FP-M6 do FP-F9: 18 m^2 plisiran papir iz steklenih vlaken

»NT« okvirji:
- odporni proti halogenom, recikliran polistirol

»HT« okvirji:
- umetni materiali in pocinkano jeklo

Tesnilno sredstvo:
- poliuretan

Test sežigljivosti uporabljenih konstrukcijskih materialov:
- model »NT«: K2/F2 po DIN 53438
- model »HT«: K1/F1 po DIN 53438

Ecofil® fine dust filter FP

Ecofil® FP Fine Dust Filters remove air contamination such as fine dust, smoke, vapor, soot, pollen, bacteria, etc. and are therefore ideally suitable as final filters or as pre-filters for HEPA- or ULPA- filters in air conditioning installations.

They are suitable for all standard filter applications, especially with those requiring increased Service Life, Safety and Versatility. Ecofil® FP Filters are available in 8 efficiencies, 4 nominal sizes, 2 depths and 2 models (NT/HT).

Application parameters

Continuous operating temperature:
- Model »NT«: <75 °C
- Model »HT«: <120 °C (not valid for FP-65)

Pressure drop:
- recommended final pressure drop: 450 Pa
- max. final pressure drop (endurance strength): 800 Pa
- bursting pressure (new filter): >1500 Pa

Admissible relative humidity:
- FP-65: <85 %
- FP-M6 do FP-F9 < 100 %

Materials

Filter medium:
- FP-65: 18 m^2 cellulose fibre paper,
- FP-M6 do FP-F9: 18 m^2 glass fibre paper

Frame »NT«:
- Incinerable halogene free recycled Polystyrol

Frame »HT«:
- Plastic and galvanized steel

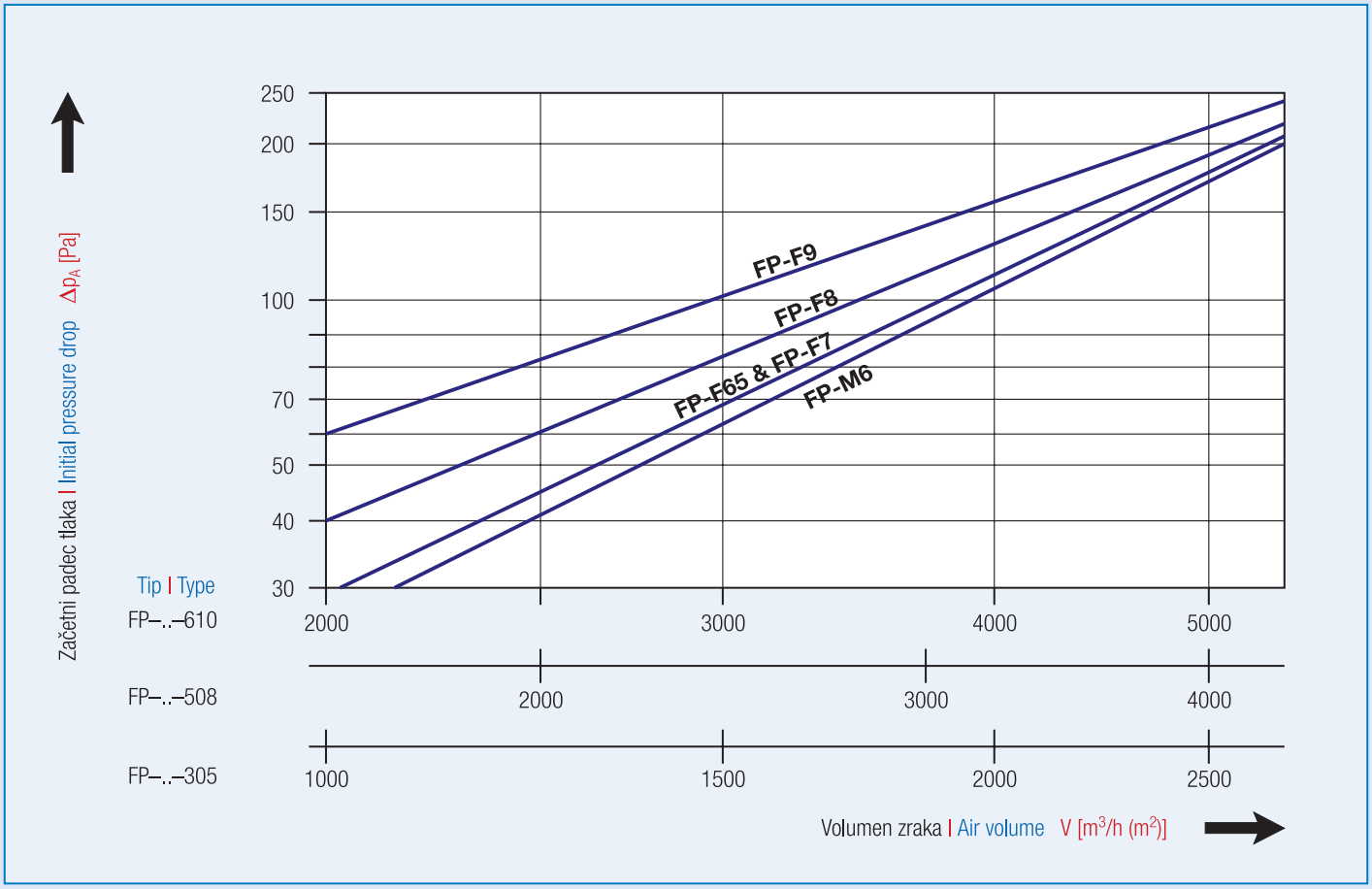
Sealent:
- Polyurethane

Flammability class, of materials used:
- Model »NT«: K2/F2 according to DIN 53438
- Model »HT«: K1/F1 according to DIN 53438

kompaktni filtri compact filters

TEHNIČNI PODATKI TECHNICAL DATA

Ecofil® fino prašni filter / Ecofil® fine dust filter		FP-	65-610	F6-610	F7-610	F8-610	F9-610
Pretok zraka | Air flow		m^3/h	5.000	5.000	5.000	5.000	4.250
Začetni padec tlaka | Initial pressure drop		Pa	140	135	140	150	140
Nominalni pretok zraka | Rated air flow		m^3/h	4.250	4.250	4.250	4.250	3.400
Začetni padec tlaka | Initial pressure drop		Pa	105	100	105	120	105
Filtrski razred | Filter class	EN 779:2011	/	M6	M6	F7	F8	F9
Povprečna učinkovitost | Efficiency average	EN 779:2011	%	70	70	82	93	96
Povprečna zadrževalnost | Arrestance average	EN 779:2011	%	>95	>98	>99	>99	~100

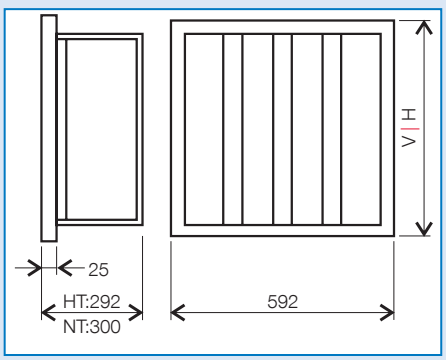


Ecofil® FP filtri za ločevanje finega prahu

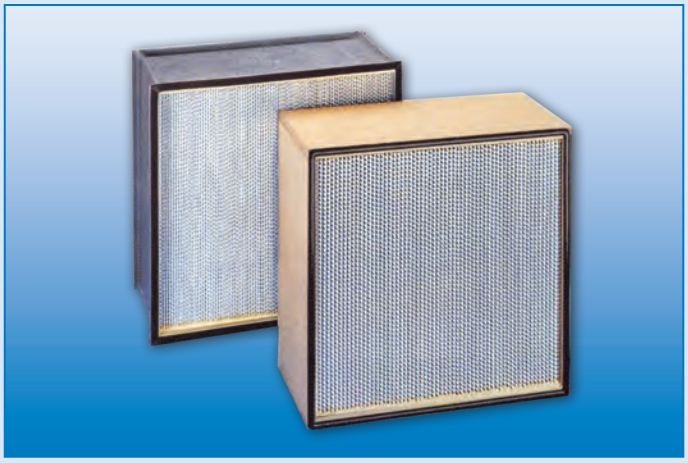
- Bogata izbira uradno preizkušenih filtrov
- Majhen padec pritiska - velik izkoristek
- Velika filtrirna površina, 18 m^2
  - izredno dolga življenjska doba
  - pretok zraka do 5.000 m^3/h
- Papir iz mikro steklenih vlaken kot medij - minimalna obraba vlaken
- Samonosna, robustna celična zgradba - velika odpornost proti lomu, popolna zadrževalnost prahu
- Možnost odločanja o smeri pretoka zraka in načinu vgradnje filtrov
- Brez emisije škodljivih snovi - proizvodi so izdelani iz materialov, ki jih je moč reciklirati
- Okvirji iz umetnih materialov

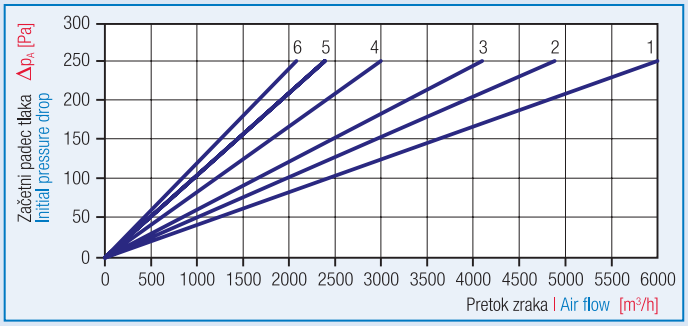
Ecofil® Fine Dust Filter FP

- Comprehensive range - independently tested
- Low pressure drop -maximum economy
- Large filter surface of 18 m^2
  - extremely long service life
  - nominal air flow up to 5.000 m^3/h
- Glass fibre paper - no fibre loss
- Self-supporting rigid structure - high bursting pressures, dust migration impossible
- Direction of air flow and installation can be chosen either way round
- Without pollutant emission fully incinerable - recyclable materials
- Frame manufactured from recycled plastic



separatorski sistem separator system





Filrski razred (št. krivulje) Filter class (Curve No.)		E11 (1)	E11 (2)	E11 (3)	H13 (4)	H13 (5)	H13 (6)
Dimenzije | Dimensions	mm	610×610	610×610	610×610	610×610	610×610	610×610
Vgradna globina | Depth	mm	292	292	292	292	292	292
Separator | Separator	mm	2,9	3,9	4,9	2,9	3,9	4,9
Pretok zraka | Air flow	m^3/h	6.000	4.800	4.200	3.000	2.400	2.100
Padec tlaka | Pressure drop	Pa	250	250	250	250	250	250

- Okvirji iz različnih materialov (MDF, legirano jeklo itd.)
- Robustna tehnika plisiranja filtrov
- Visoka temperaturna obstojnost (do 120 °C)
- Filtri z ali brez zaščitnih mrež
- Zagotovljena stoodstotna zatesnjenost filtrov
- Proizvodi izdelani po EN in DIN

- Wide range of frame materials (MDF, alloy steel etc.)
- Robust pleating technique
- Temperature resistance up to 120°C
- Filters with or without protecting nets
- 100 % sealing
- Products are tested according to EN and DIN

Ecofil® absolutni filtri (E10–H14)

Področje uporabe

Ecofil® filtre - filtrski razredi E10–H14 - uporabljamo v primerih, ko moramo izpolnjevati najvišje zahteve po čistosti zraka:

- v industrijskih procesih (mikroelektronika, farmacija, živilska industrija, medicina, optika, mikrobiologija itd.),
- v operacijskih dvoranah in v bolnišnicah,
- pri filtraciji nevarnih snovi, kot so azbest, težke kovine ter kancerogeni prah in
- na področju jedrske energije.

Z uporabo ultrafinih mikro steklenih vlaken in robustno tehniko plisiranja s pomočjo aluminijskih separatorjev dosegajo Ecofil® filtri izredno visoko kapaciteto zadrževanja submikronskih delcev, kar zagotavlja optimalne obratovalne pogoje.

Izvedbe

Okvirji: Večplasten les, MDF-plošče, pločevina izlegiranega jekla in pocinkana pločevina

Vgradne globine: 150, 292 mm

Tesnjenje: PU-penasto tesnilo

Zaščita: Filtri z ali brez zaščitnih mrež

Temperatura: do 120 °C

Relativna vlažnost zraka: do 100 %

Pri izdelavi Ecofil® filtrov se prilagajamo tudi zahtevam in željam strank; glede na zahteve nudimo možnost izdelave filtrov večjih zmogljivosti.

Ecofil® absolute filters (E10–H14)

Applications

Ecofil® Sediment Filters (Filter classes E10–H14) are used in air ventilation and air conditioning plants with extremely high requirements for air purity:

- Industrial processes like microelectronics, pharmacy, food-processing industry, medicine, optics, microbiology etc.)
- Hospitals and hospital operating theatres
- Filtration of toxic and dangerous substances and materials like asbestos, heavy metals and carcinogenic dust
- Nuclear energy and nuclear research

Ecofil® filters are known for their special pleating technique and made of micro glass fibres, which guarantees an extremely high dust holding capacity and makes controlling of Laminar Flow possible.

Models

Frame: Wood, MDF, alloy steel plate and galvanized sheet metal

Depth: 150, 292 mm

Washers: PU - foam washers

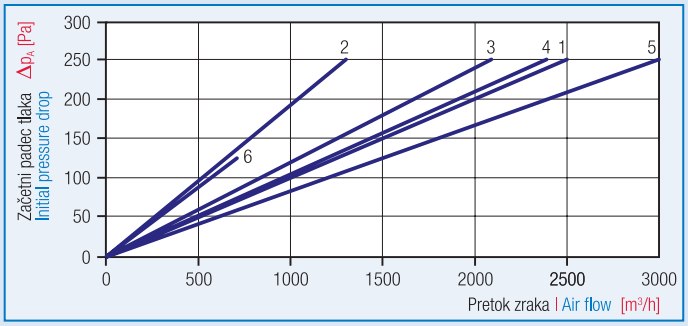
Protection: Filters with or without protecting nets

Temperature: up to 120 °C

Relative humidity: up to 100 %

A comprehensive range of high quality filters; supply depending on demand of the customers.

mini-plisirni sistem mini-pleat system



Filrski razred (št. krivulje) **Filter class** (Curve No.)		E11 (1)	E11 (2)	E11 (3)	H13 (4)	H13 (5)	H13 (6)
Dimenzije | Dimensions	mm	610×610	610×610	610×610	610×610	610×610	610×610
Vgradna globina | Depth	mm	78	78	150	292	292	78
Separator | Separator	mm	65	65	100	150	230	65
Pretok zraka | Air flow	m^3/h	2.500	1.260	2.100	2.400	3.000	600
Padec tlaka | Pressure drop	Pa	250	250	250	250	250	125

- Zadržljivost od 85 %–99,999995 %
- Okvirji iz različnih materialov (aluminij, MDF itd.)
- Različne vrste tesnil (penasta ravna in gel tesnila ter tesnilni žeblički)
- Filtri z ali brez zaščitnih rešetk
- Zagotovljena stoodstotna zatesnjenost filtrov
- Proizvodi izdelani po EN in DIN

Ecofil® absolutni filtri (E10–H14 in U15–17)

Področje uporabe

Ecofil® filtre - filtrski razredi E10–H14 in U15–U17 - uporabljamo v primerih, ko moramo izpolnjevati najvišje zahteve po čistosti zraka:

- v industrijskih procesih (mikroelektronika, farmacija, živilska industrija, medicina, optika, mikrobiologija itd.),
- v operacijskih dvoranah in v bolnišnicah,
- v čistih sobah,
- v ventilacijskih enotah,
- pri filtraciji nevarnih snovi, kot so azbest, težke kovine ter kancerogeni prah in
- na področju jedrske energije.

Spričo uporabe ultrafinih mikro steklenih vlaken in tehnike plisiranja imajo Ecofil® filtri izredno visoko kapaciteto zadrževanja submikronskih delcev, kar zagotavlja nadzorovan pretok zraka.

Prednosti za uporabnika

Ecofil® filtri zagotavljajo maksimalne učinke ob minimalni porabi energije.

Izvedbe

Okvirji: Aluminij, les, MDF-plošče, pločevina iz legiranega jekla in pocinkana pločevina

Vgradne globine: 46, 54, 69, 75, 78, 150, 292 mm

Tesnjenje: Penasta ravna in gel tesnila, U-profil tesnila ter visokotemperaturna tesnila.

Zaščita: Filtri z ali brez zaščitnih mrež.

Temperatura: do 80 °C

Relativna vlažnost zraka: do 100 %

Pri izdelavi Ecofil® filtrov se prilagajamo tudi zahtevam in željam strank; glede na zahteve nudimo možnost izdelave filtrov večjih zmogljivosti.

- Efficiency from 85 % up to 99,999995 %
- Extensive range of frames and materials (aluminium, MDF, etc.)
- Wide range of washers
- Filters with or without protecting nets
- 100 % sealing
- Products are tested according to EN and DIN

Ecofil® absolute filters (E10–H14 and U15–17)

Applications

Ecofil® Sediment Filters (Filter classes E10–H14 and U15–U17) are used in air ventilation and air conditioning plants with extremely high requirements for air purity:

- Industrial processes like microelectronics, pharmacy, food-processing industry, medicine, optics, microbiology etc.)
- Hospitals and hospital operating theatres
- Laminar Flow Boxes
- Filter-Fan-Units
- Filtration of toxic and dangerous substances and materials like asbestos, heavy metals and carcinogenic dust
- Nuclear energy and nuclear research

Ecofil® filters are known for their special pleating technique and made of micro glass fibres, which guarantees an extremely high dust holding capacity and makes controlling of Laminar Flow possible.

Advantages for the users

Maximal efficiency with minimal energy costs.

Models

Frame: Aluminium, wood, MDF, alloy steel plate and galvanized sheet metal

Depth: 46, 54, 69, 75, 78, 150, 292 mm

Washers: Wide range of washers, which make sealing possible

Protection: Filters with or without protecting nets

Temperature: up to 80 °C

Relative humidity: up to 100 %

A comprehensive range of high quality filters; supply depending on demand of the customers.

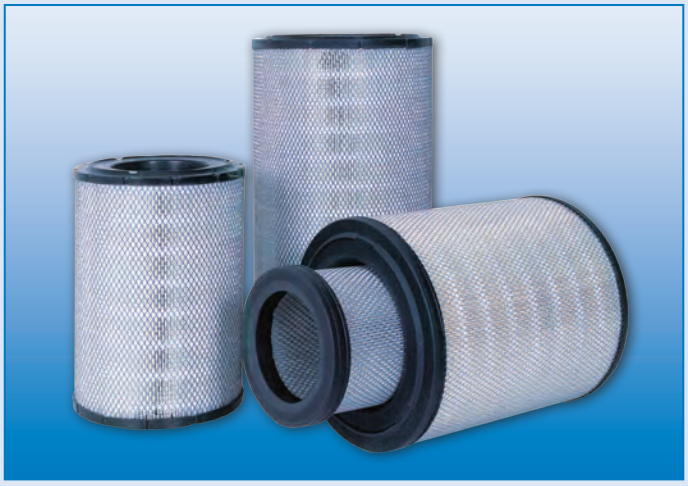
vrečasti filtri filtering bags

Radialni zračni filtrski vložki / Radial air filter cartridges

Ecofil® filter patrone so namenjene široki uporabi v motorjih tovornjakov, avtobusov, kmetijski in gradbeni mehanizaciji ter pri vsej drugi težki mehanizaciji in strojih. Visoko kakovostne Ecofil® filter patrone so proizvedene v skladu z visokimi standardi kakovosti po DPS in 2DPS.

Ecofil® filter cartridges are used in bus and truck engines, agricultural machinery, construction equipment and machinery, as well as in heavy-duty engines.
Ecofil® filter cartridges are produced to a very high standard of quality according to DPS and 2DPS systems.

Radialni zračni filtri s poliuretanskim tesnilom / Radial polyurethane seal air filter



Ecofil® zračni filtri s poliuretanskim tesnilnim obročem so narejeni v skladu s plisirnimi sistemi DPS in 2DPS. Primerni so za uporabo v skrajnih pogojih filtracije.

Ecofil® air filters with special micro cell polyurethane sealing rings are produced in compliance with DPS and 2DPS pleating systems. They are suitable for the application of filtration under extreme conditions.

Ecofil® filter adapter / Ecofil® filter adaptor

DPS je plisirni sistem filtrov z največjo možno učinkovitostjo pri filtraciji. Z uporabo tega sistema zagotovimo enakomeren medprostor med gubami in temu ustrezen pretok zraka skozi filter. Reže med gubami se ne spremenijo niti v ekstremnih pogojih filtracije, emisijska površina pa se ne spremeni oz. ne zmanjša. Tako sta omogočena normalen pretok zraka in dolgotrajna učinkovitost filtra.

DPS is a pleating filter system with the highest possible filtration efficiency. When using this system, equal space between the pleats and the corresponding air flow through the filter are ensured. Even under extreme conditions of filtration the gaps between the pleats never change, and the emission surface does not change or decrease either. Thus, a regular air flow and long lasting efficiency of the filter are provided.

		Ecofil® PE/PE 351	Ecofil® PE/PE 401	Ecofil® PE/PE 451	Ecofil® PE/PE 501	Ecofil® PE/PE 501 Si	Ecofil® PE/PE 504 glaze CS17	Ecofil® PE/PE 551 glaze	Ecofil® PE/PE 551 Si	Ecofil® PE/PE 551 CS17	Ecofil® PE/PE 354 glaze ExCharge	Ecofil® PE/PE 401 ExCharge	Ecofil® PE/PE 451 ExCharge	Ecofil® PE/PE 501 ExCharge	Ecofil® PE/PE 551 ExCharge	Ecofil® PE/PE 554 glaze ExCharge	Ecofil® PE/PE 551 ExCharge CS17	Ecofil® PP/PP 504	Ecofil® PP/PP 554	Ecofil® AC/AC 551	Ecofil® DT/DT 501
1	**Koda** TAN	3440	3732	1012	2733	3031	4951	5495	3342	3753	5540	1119	5105	1120	4046	4993	5058	3784	2113	3014	4863
2	**Sestava** Composition																				
	vlaknasti sloj web	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(i)	(i)	(g)	(b)
	tkanina scrim	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(i)	(i)	(g)	(b)
3	**Teža** Area weight (g/m²)																				
	ISO 9073-1	350	400	450	500	500	500	550	550	550	350	400	450	500	550	550	550	500	550	550	500
4	**Debelina** Thickness (mm)	1,5	1,6	1,7	2	2,1	1,7	2	1,9	1,9	1,1	1,6	1,9	1,9	1,9	1,8	1,9	2,1	2,2	2,4	2,5
5	**Gostota** Density (g/m³)	0,23	0,25	0,26	0,25	0,24	0,29	0,28	0,29	0,29	0,32	0,25	0,24	0,26	0,29	0,31	0,29	0,24	0,25	0,23	0,2
6	**Propustnost** Air permeability (mm/s @ 200 Pa)																				
	EN ISO 9237	583 (J)	417 (A)	417 (A)	333 (E)	333 (E)	267 (K)	250 (F)	250 (F)	250 (F)	417 (A)	417 (A)	458 (M)	333 (E)	250(F)	217 (L)	250 (F)	333 (E)	200 (C)	250 (F)	333 (E)	
7	**Volumen por** Pore volume (%)	83	82	81	82	83	79	80	79	79	77	82	83	81	79	78	79	74	73	80	83
8	**Raztržnost** Tensile strength (daN)																				
	ISO 9073-3																				
	velikost vzorca sample size 200/50 mm																				
	vzdolžno lenght	155	150	150	165	115	175	185	155	165	185	150	185	155	155	155	145	185	180	60	35
	prečno cross	130	150	145	160	130	175	160	165	170	130	145	130	145	165	175	170	165	190	95	115
9	**Razteznost** Elongation at break (%)																				
	ISO 9073-3																				
	vzdolžno lenght	21	21	20	21	18	21	20	20	21	21	21	22	21	20	21	20	23	22	15	10
	prečno cross	22	23	26	24	23	23	28	25	28	24	22	23	23	27	28	27	24	28	30	26
10	**Temperaturna obstojnost*** Temperature resistance * (°C)																				
	trajna continual	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	90	90	115	125
	kratkotrajna short	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	95	95	120	140
11	**Največja sprememba dimenzij** Max. change of dim. (°C)																				
	pri 150 °C at 150 °C	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
12	**Dodatna obdelava površine** Surface design/treatment																				
		(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
		(2)	(2)	(2)	(2)	(2)	(6)	(6)	(2)	(2)	(6)	(2)	(2)	(2)	(2)	(6)	(2)	(2)	(2)	(2)	(2)
			(7)		(7)	(9)	(5)		(9)	(5)	(10)	(10)	(10)	(10)	(10)	(10)	(10)				
									(7)		(12)	(12)	(12)	(12)	(12)						

DODATNA OBDELAVA | ADDITIONALTREATMENTS

(1) Toplotno stabiliziran / Termo fiksiran | Heat set
(2) Smojena površina | Singed face side
(3) Antistatična mešanica vlaken | Epitropic fibre admixture
(4) Mikro pore iz mikro vlaken | Micro pores by fine fibres
(5) Olje in vodoodbojna impregnacija za boljše čiščenje prašnih delcev | Full bath oil and water repellent finish for optimal cake release
(6) Zaglajen/kalandriran | Glazed face side
(7) Na voljo v širinah 200 cm, 210 cm in 220 cm | Available 200 cm, 210 cm and 220 cm width
(8) Teflonska površinska impregnacija | PTFE surface coating
(9) Obdelava za boljše odpadanje prahu (izločanje) | Full bath anti-adhesive finish
(10) Konstantna prevodna matrika iz kovinskih niti; upornost $<10^6$ Ohm (DIN 54345 del 1 in del 5) | Permanent conductive matrix, resistance $<10^6$ Ohm (DIN 54345 part 1 and part 5)
(11) Polna teflonska impregnacija | Full bath PTFE treatment
(12) ACU-antistatik z bakrenimi vlakni-upornost $<10^3$ Ohm (DIN 54345 del 1 in del 5) | ACU-antistatic with coppers fibres composition-resistivity $<10^3$ Ohm (DIN 54345 part 1 and part 5)

SESTAVNI MATERIALI | COMPOSITION MATERIALS

(a) Poliester | Polyester
(b) Poliakril homopolimer | Polyacrylonitrile Homopolymer
(c) Polifenil sulfid | Polyphenylene Sulphide
(d) Meta aramid | m-Aramide
(e) Polimid | Polyimide
(f) Teflon | PTFE
(g) Poliakril - kopolimer | Polyacrylonitrile Copolymer
(h) Poliamid-imid | Polyamide-imide
(i) Polipropilen | Polypropylene

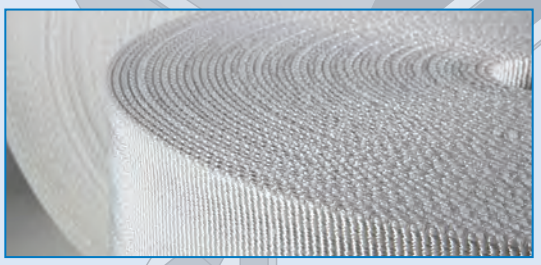
OPOMBE | REMARKS

* Kemijski sestav dimnih plinov lahko zahteva nižje obratovalne temperature
* Chemical gas stream conditions may require a lower continuous operating temperature to be maintained

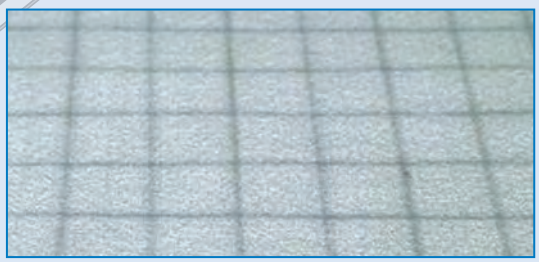
	Ecofil® DT/DT 554 glaze	Ecofil® DT/DT 551 MPS	Ecofil® DT-PE/DT-PE 551 MPS	Ecofil® DT-PE/DT-PE 601	Ecofil® PPS/PPS 551	Ecofil® PPS/PPS 551 MPS	Ecofil® PPS/PPS 554 CS17	Ecofil® PPS/PPS 554 CS30	Ecofil® PPS/PPS 601	Ecofil® NO/NO 401	Ecofil® NO/NO 501	Ecofil® NO/NO 501 CS17	Ecofil® NO/NO 551	Ecofil® NO/NO 554 CS17	Ecofil® AsphalTec LPC	Ecofil® AsphalTec HPC	Ecofil® PI/PI 501	Ecofil® PI/PI 501 CS30	Ecofil® PI/PI 551	Ecofil® PI/PI 551 MPS	Ecofil® PI/PI 554 CS17	Ecofil® PTFE/PTFE 752 MPS	Ecofil® PTFE/PTFE 754 MPS CS18	Ecofil® PTFE/PTFE 754 MPS CS30	Ecofil® TFL/PTFE 752 MPS	Ecofil® TFL/PTFE 754 MPS CS18
	4474	1181	5899	1661	4571	4429	4340	5422	1473	1665	1792	1682	2235	2087	6097	6098	2521	6078	1939	2684	2774	4375	3951	5716	6066	2930
	(b)	(b)	(b)+(a)	(b)+(a)	(c)	(c)	(c)	(c)	(c)	(d)	(d)	(d)	(d)	(d)	(h)	(h)	(e)	(e)	(e)	(e)	(e)	(f)	(f)	(f)	(f)	(f)
	(b)	(b)	(b)+(a)	(b)+(a)	(c)	(c)	(c)	(c)	(c)	(d)	(d)	(d)	(d)	(d)	(d)	(d)	(e)	(e)	(e)	(e)	(e)	(f)	(f)	(f)	(f)	(f)
	550	550	550	600	550	550	550	550	600	400	500	500	550	550	400	500	500	500	550	550	550	750	750	750	750	750
	2,4	2,1	2	2,1	1,8	1,8	1,6	1,7	1,8	2,1	2,5	2,3	2,5	2,3	2,1	2,4	2,7	2,6	2,7	2,4	2,4	1,5	1,5	1,2	1,5	1,2
	0,23	0,26	0,28	0,29	0,31	0,31	0,34	0,32	0,33	0,19	0,2	0,22	0,22	0,24	0,19	0,21	0,19	0,19	0,2	0,23	0,23	0,5	0,5	0,63	0,5	0,63
	167 (H)	125 (B)	167 (H)	150 (D)	250 (F)	167 (H)	200 (C)	200 (C)	200 (C)	417 (A)	333 (E)	333 (E)	250 (F)	225 (G)	417 (A)	333 (E)	333 (E)	250 (F)	250 (F)	167 (H)	200 (C)	183 (I)	167 (H)	167 (H)	250 (F)	183 (I)
	81	78	78	77	77	77	75	77	76	86	86	84	84	83	86	84	87	87	86	84	84	76	76	70	76	70
	100	105	115	105	85	90	85	65	85	40	45	45	40	65	50	50	75	60	80	80	80	90	90	90	80	75
	130	80	155	180	155	140	135	105	165	110	150	150	165	165	85	145	130	135	130	130	130	95	95	90	95	95
	12	14	18	19	23	22	23	23	22	20	23	22	21	24	14	20	20	16	20	20	20	7	8	7	8	9
	26	14	22	23	37	28	39	49	40	42	40	41	42	42	25	30	30	30	30	30	30	19	12	43	48	47
	125	125	125	125	190	190	190	190	190	200	200	200	200	200	170	170	240	240	240	240	240	250	250	250	250	250
	140	140	140	140	200	200	200	200	200	220	220	220	220	220	190	190	260	260	260	260	260	280	280	280	280	280
	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<2	<2	<2	<2
	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
	(6)	(2)	(2)	(2)	(2)	(2)	(6)	(6)	(2)	(2)	(2)	(2)	(2)	(6)	(2)	(2)	(2)	(2)	(2)	(2)	(6)	(4)	(6)	(6)	(4)	(6)
		(4)	(4)			(4)	(5)	(11)				(5)		(5)				(11)		(4)	(5)		(4)	(4)		(4)
																							(8)	(11)		(8)

PROPUSTNOST | AIR PERMEABILITY

(A)	250 l/(dm² min) @ 200 Pa
(B)	75 l/(dm² min) @ 200 Pa
(C)	120 l/(dm² min) @ 200 Pa
(D)	90 l/(dm² min) @ 200 Pa
(E)	200 l/(dm² min) @ 200 Pa
(F)	150 l/(dm² min) @ 200 Pa
(G)	135 l/(dm² min) @ 200 Pa
(H)	100 l/(dm² min) @ 200 Pa
(I)	110 l/(dm² min) @ 200 Pa
(J)	350 l/(dm² min) @ 200 Pa
(K)	160 l/(dm² min) @ 200 Pa
(L)	130 l/(dm² min) @ 200 Pa
(M)	275 l/(dm² min) @ 200 Pa



Platna za zračna korita
Air lide belts



Antistatik material - ExCharge
Antistatic material - ExCharge

Antistatik material s konstantno prevodno INOX Matriko
<10^6 ohm ExCharge z DEKTRA Exam certifikati
Antistatic material with constant conductive stainless steel matrix
<10^6 ohm ExCharge with DEKTRA Exam Certificates

ecofil®
FILTER

Filtrske patrone

Tehnološko izpopolnjena patrona z dvakratno življenjsko dobo in izboljšano učinkovitostjo.
Posebna konstrukcija teh patron omogoča dvakrat daljšo življenjsko dobo, kot jo imajo navadni filtri za filtriranje tekočin. Računalniška obdelava je optimizirala patrono, tako da je izkoriščena maksimalna površina. Izboljšana konstrukcija v primerjavi s tovrstnimi standardnimi filtri omogoča večje zadrževanje umazanije (povprečno dvakrat večje) in zagotavlja globinsko filtracijo.
Patrone so na razpolago v naslednjih kakovostnih razredih: 1 µm, 3 µm, 5 µm, 10 µm, 20 µm, 30 µm, 50 µm in 100 µm.
Uporabljajo se pri raznih vodnih procesih, kemičnih in foto procesih, pri obdelavi derivatov, pri uporabi pitnih tekočin ...

Filter cartridges

Technologically advanced cartridge with a doubled cartridge life, and improved performance.
The unique construction of cartridges provides twice the average life of conventional cartridges for fluid filtration. Computer modelling has optimized the cartridge's geometry, thus enabling full use of the cartridge's surface. The enhanced design provides improved dirt-holding capacity (twice the average) over standard cartridges, whilst providing secure deep bed filtration.
They are available in the qualities of 1 µm, 3 µm, 5 µm, 10 µm, 20 µm, 30 µm, 50 µm and 100 µm.
Applications: water treatment processing, chemical and photographic processing, treatment of derivatives, beverages etc.

Filtrske vreče

Ecofil® filter vreče omogočajo visoko kvalitetno in zelo učinkovito filtracijo.
Ecofil® vreče so idealne za odstranjevanje trdnih delcev v kakršnemkoli procesu. Ti filtri se proizvajajo in testirajo v zelo strogih pogojih za zagotavljanje učinkovite filtracije. Te filter vreče se uporabljajo pri visoki stopnji pretoka, kjer gostota tekočine (nad 10.000 cps) zahteva filtracijo.
Ecofil® vreče so na razpolago v naslednjih kakovostnih razredih: 1 µm, 2,5 µm, 5 µm, 10 µm in 25 µm (zadrževanje delcev).
Uporaba: lepila, pijače, premazi, hladila, črnila, detergenti, barve, pralni sistemi, v rafineriji, razkrojila, umetna smola ...

Filtering bags

Ecofil® filtering bags provide high quality, efficient and consistent filtration.
Ecofil® filtering bags are ideal for removing solid particles in virtually any processing. They are manufactured and tested under the strictest quality control standards to assure efficient performance. These filtering bags are used at a high flow rate, where a liquid density above 10.000 cps requires filtration.
Ecofil® filtering bags are available in categories of 1 µm, 2,5 µm, 5 µm, 10 µm and 25 µm (particle retention ratings).
Applications: adhesives, beverages, coatings, coolants, inks, detergents, paints, washing systems, oil refineries, dissolutions, synthetic resins etc.

Vpojna Patrona

Učinkovito in ekonomično odstranjevanje ogljikovodikov z vpojno patrono.
Vpojna patrona uporablja modificiran polimer, ki ekonomično in učinkovito zmanjša prisotnost ogljikovodikov v tekočinah.
Radialna zgradba filtra omogoča maksimalno uporabo površine. Uporabljamo ga lahko samostojno ali v kombinaciji z drugimi filtri. Vpojne patrone rešijo mnogo problemov, ki se pojavijo z onesnaženostjo vode in drugih tekočin z ogljikovodiki.
Uporaba: industrijsko čiščenje odpadne vode, čistilne naprave v rafinerijah, v avtopralnicah in v pralnicah.

Absorbent cartridge

Effective and economic removal of hydrocarbons with the aid of absorbent cartridge.
An absorbent cartridge utilizes a modified polymer for economic and effective reduction of any hydrocarbon present in fluids. The radial filter structure provides maximum utilization of available surface area. This product can be used independently or in combination with other filters. It solves many problems concerning the contamination of water and other fluids containing hydrocarbons.
Applications: industrial waste-water treatment, cleaning plants in oil refineries, car washes and other similar places.

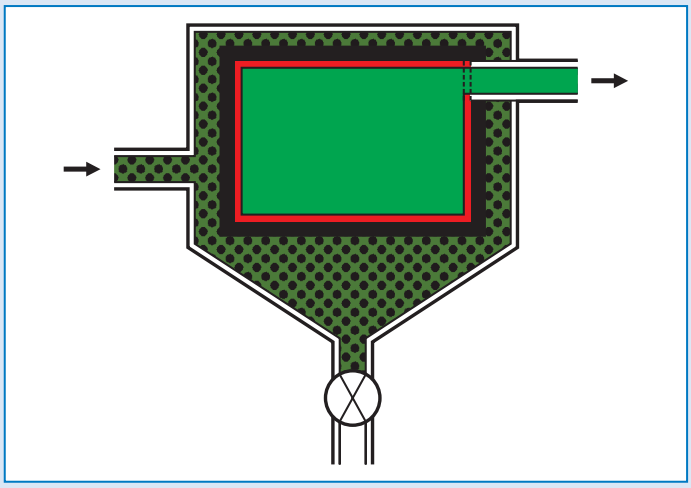
Ultra filtracija

Kakovostna rešitev filtracije z najlon membransko filtrno patrono.
Najlon membranska filtrska patrona omogoča široko kemično kompatibilnost in visoko učinkovitost na nivojih nizkega izločanja pri kritičnih tokovih procesnih tekočin. Idealni so pri bioloških filtracijah.
Proizvajajo se v naslednjih kakovostnih razredih (velikost pore): 0,1 µm, 0,2 µm, 0,45 µm in 0,65 µm.
Uporaba: v prehrambeni industriji, kemični in medicinski industriji, informacijski industriji (optika, računalništvo, fotografija) ...

Ultra filtration

Quality filtration solution with the aid of a nylon-membrane filter cartridge.
Nylon membrane filter cartridges provide a wide range of chemical compatibility and highly-rated efficiency at low extractable levels in critical process fluid streams. They are ideal for biological filtration applications and **are available in pore sizes of** 0,1 µm, 0,2 µm, 0,45 µm and 0,65 µm.
Applications: in food processing, chemical and medical industries, informatics industries (optics, computer technology, photographic), etc.

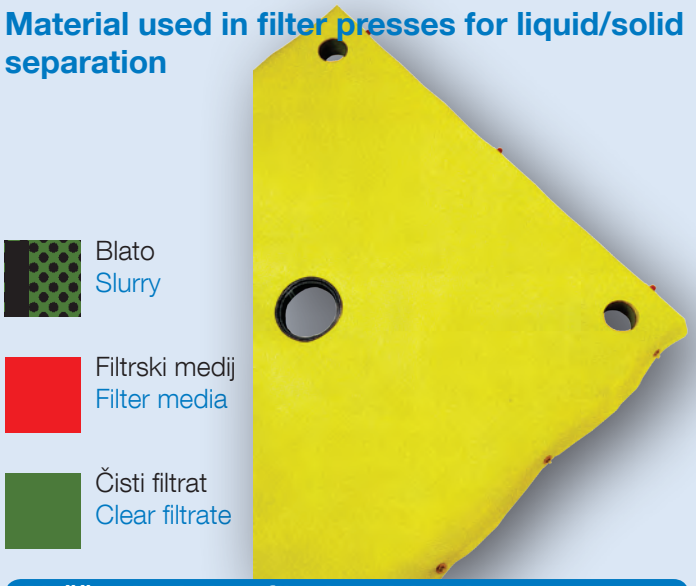
Tlačni lamelni filter



Pressure leaf filter

Material za filter stiskalnice za izločanje trdih delcev iz tekočin

Material used in filter presses for liquid/solid separation

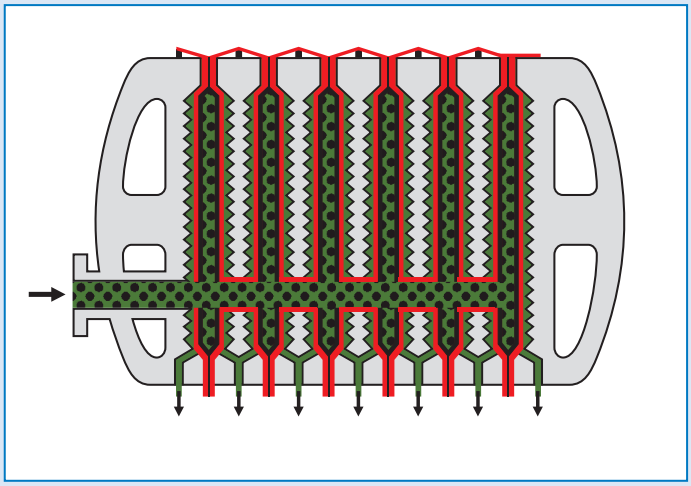


Blato
Slurry

Filtrski medij
Filter media

Čisti filtrat
Clear filtrate

Odstopna ploščna filtrska stiskalnica



Recessed plate filter press

Ploščna in okvirna filtrska stiskalnica

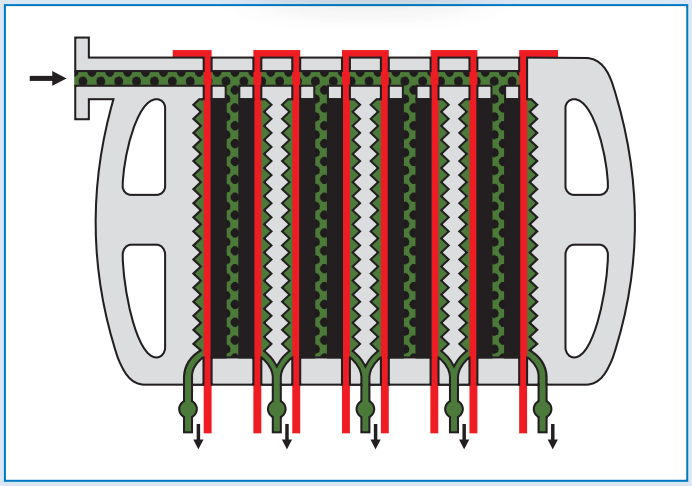
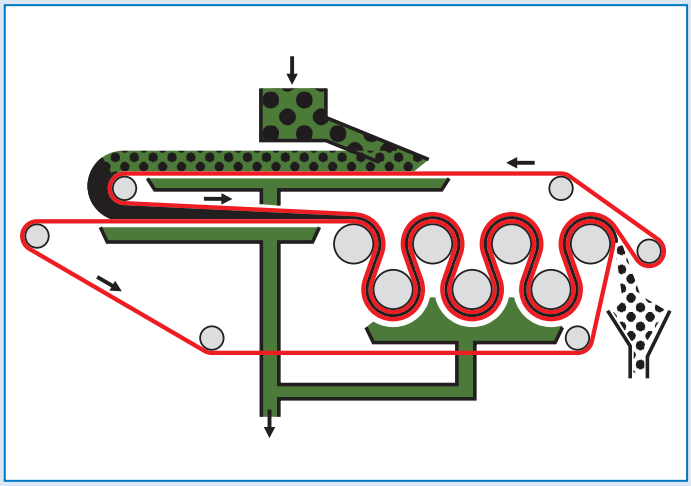


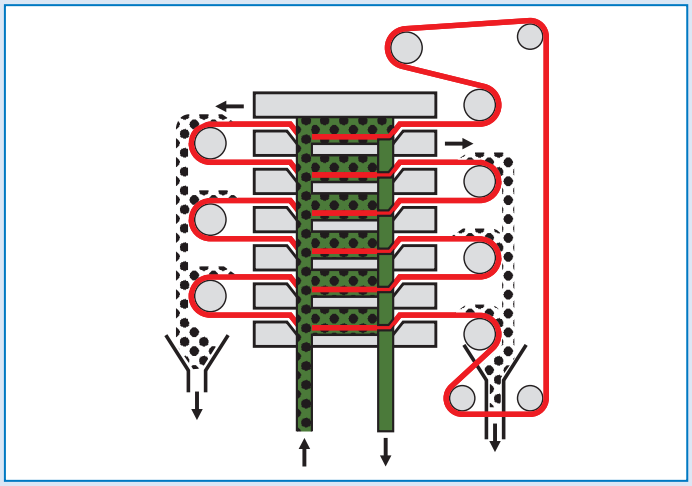
Plate and frame filter press

Večvaljčna tračna stiskalnica



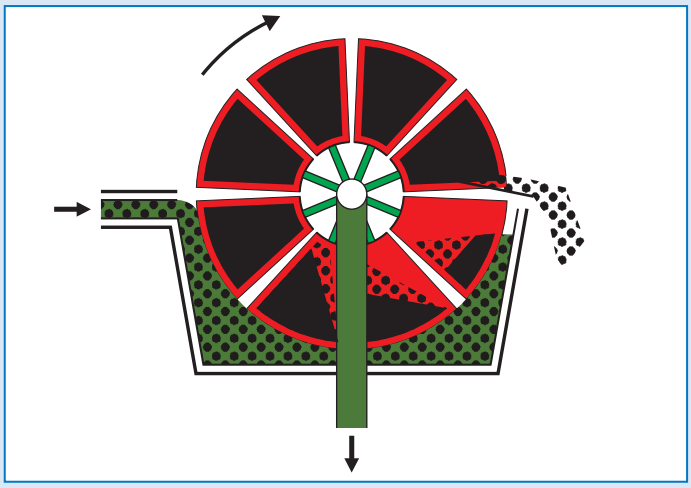
Multi roll-belt press

Avtomatska vertikalna filtrska stiskalnica



Fully-automatic vertical filter press

Rotacijski vakuum-disk filter



Rotary Vacuum disc filter

Vakuumski filtri za izločanje trdih delcev iz tekočin

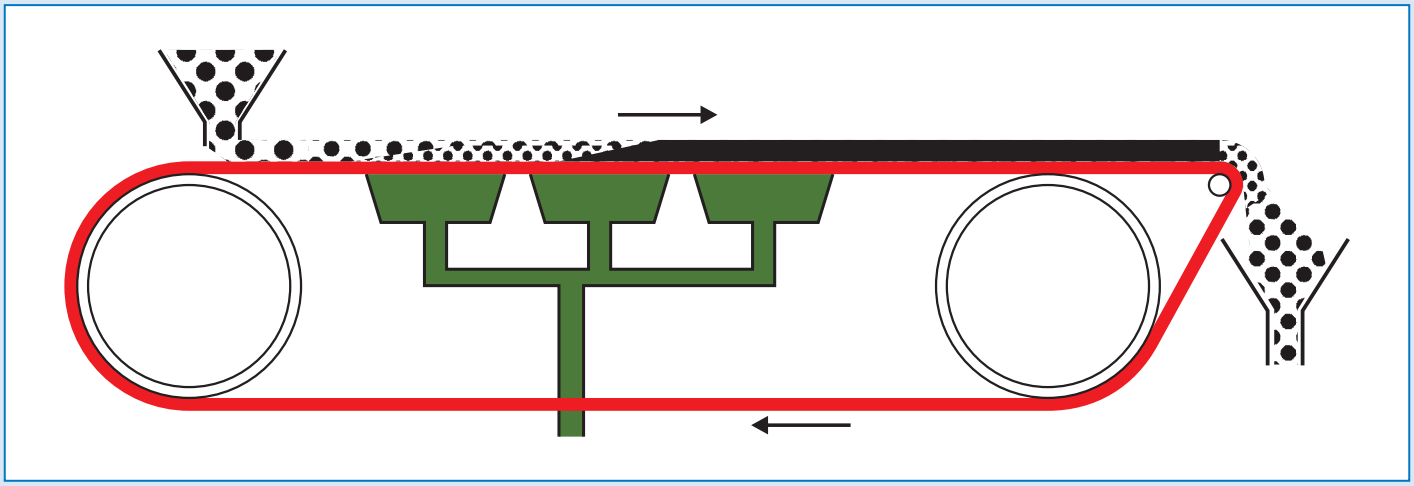
Vacuum filters for liquid/solid separation

Blato
Slurry

Filtrski medij
Filter media

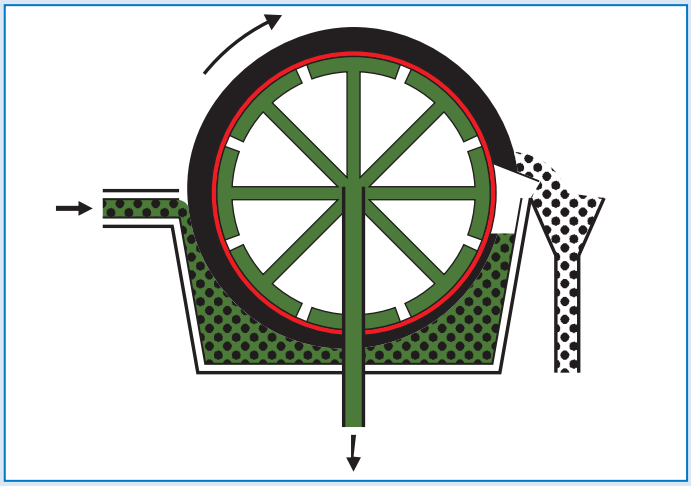
Čisti filtrat
Clear filtrate

Vakumski filtrski trak



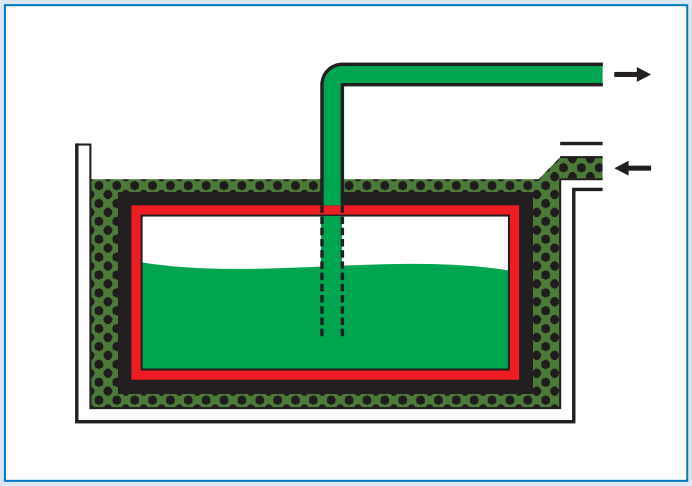
Vacuum filter belt

Rotacijski vakuumski bobnasti filter



Rotary Vacuum drum filter

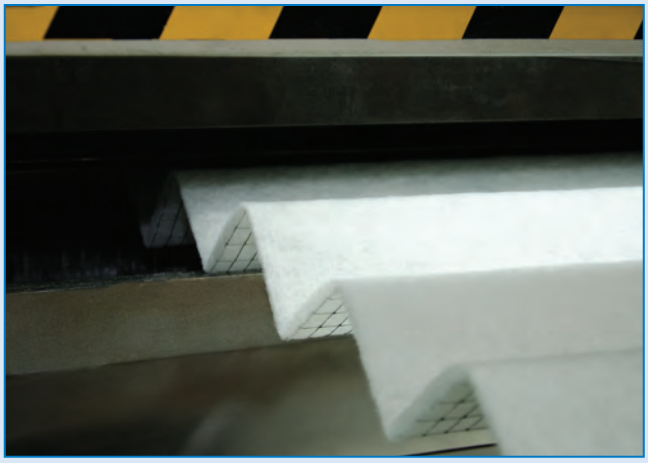
Vakuumski lamelni filter

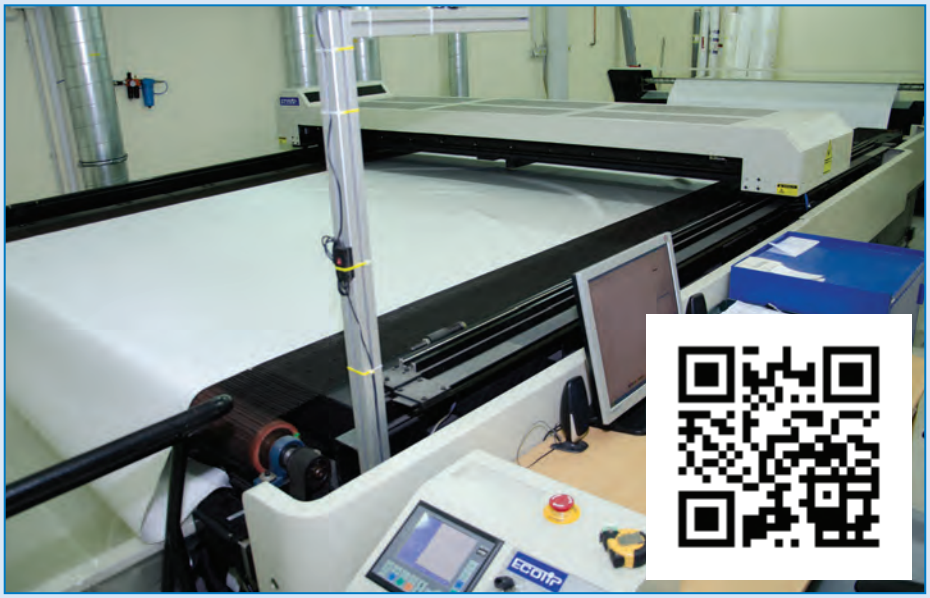


Vacuum leaf filter

ecofil®
FILTER

ECOTIP filtracija zraka in tekočin
ECOTIP air & liquid filtration





ecofil® FILTRACIJA ZRAKA IN TEKOČIN
AIR & LIQUID FILTRATION

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