INFO: EN779:2012

We are the filter experts!

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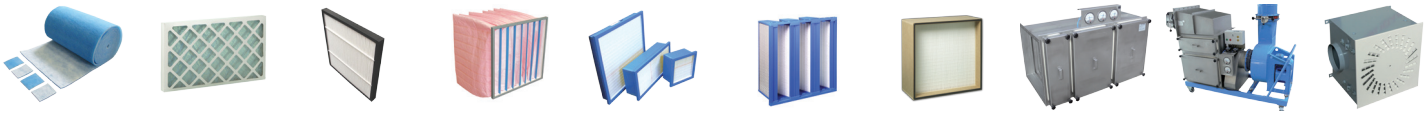

Content:

HS-Luftfilterbau GmbH
Bunsenstrasse 31
D-24145 Kiel / Germany

Tel.: +49-(0)431-71953-0
Fax: +49-(0)431-71953-0
mail: info@luftfilterbau.de
web: http: // www.luftfilterbau.de

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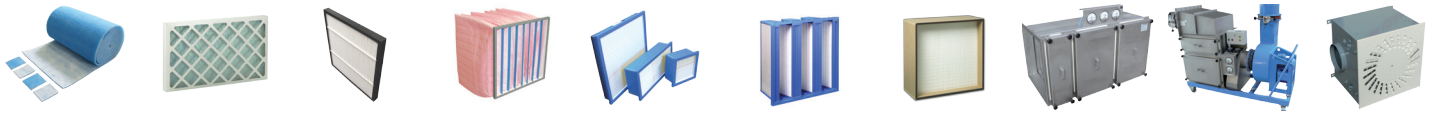

The standard EN779:2012 is ratified

The new European standard for air filters was ratified after setteling the dispute with the italian UNI in March 2012. Its official publication is foreseen for the end of this year.

The essential modifications are:

- minimum efficiency for filter of class "F" at their (electrostatic) unloaded state (**M.E.**)
- new classification M5 and M6 instead of F5 and F6
- leak tests for assessing the level of efficiency (0.4 µm), the aerosol DEHS (Di-Ethyl-Hexyl-Sebacat) is to be used as a standard procedure.

The classification in compliance with EN779:2002 divided filters into Group-G and Group-F filter for coarse and fine dust adsoption. Accordingly, in the revised standard 2012 there will be three filtration efficiency levels – G, M, and F. Filter that state a filtration efficiency for particles of 0.4 µm of 40 percent or less will be marked as class G.

The categorization of filtration **Group G (G1 – G4)** is based on the average dust holding capacity (gravimetric / weight). As for Group F and M, the determination of dust holding capacity will be an indicator for the filters lifespan. It won't be used for classification matters.

Group M will include all filter with an average filtration efficiency of 40 percent of higher but with an efficiency of 80 percent or less for particles of 0.4 microns. Therefore, class F5 and F6 will fall by the wayside. Class M5 and M6 are to replace them. Other than that, the efficiency levels will be the same.

Filter with an efficiency of 80 percent or higher for particles of 0.4 microns will be marked as **Group F**. Their overall efficiency is to be determined as before.

But, according to the new procedure Group F-filter are to uphold a "minimum efficiency" (short: **M.E**.) which indicates the primary efficiency at the state of being electrostatically discharged

This will be a mandatory criteria for all Group F-filter. We predict that for most commonly used synthetic filter media this will be hard to achieve.

Therefore, we would like to present to you our newest line of production: Bag-Filter in compliance with EN779:2012.

HS Luftfilterbau GmbH will however offer alternative filters according the EN779:2002 standard as long as the market demands for such products.

classification according to group or class according to EN 779:2012

Group	Class	Final test pressure drop [PA]	Average arrestance (Am) of synthetic dust [%]	Average efficiency (Em) of 0,4 µm particles [%]	Minimum Efficiency of 0,4 µm particles [%]
Coarse	G1	250	50 < Am < 65	-	-
	G2	250	65 < Am < 80	-	-
	G3	250	80 < Am < 90	-	-
	G4	250	90 < Am	-	-
Medium	M5	450	-	40 < Em < 60	-
	M6	450	-	60 < Em < 80	-
Fine	F7	450	-	80 < Em < 90	**35**
	F8	450	-	90 < Em < 95	**55**
	F9	450	-	95 < Em	**70**

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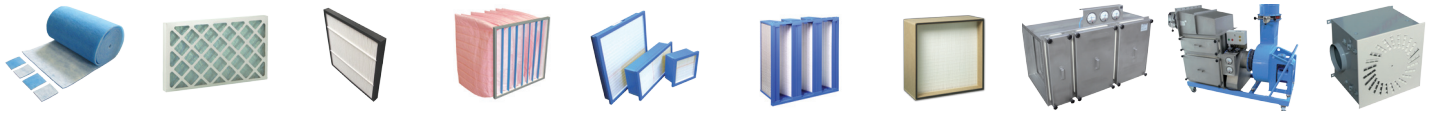


New: HS-AirSynErgy Bagfilter (complies to EN779:2012)

HS-AirSynErgy – a perfectly aligned product

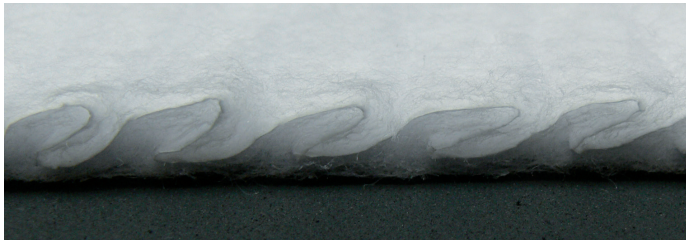
The perfect Bag Filter is an arrangement of construction, media, and processing. The revised standard EN779:2012 is making high demands especially on filter made of synthetic media. Most will not be able to meet these requirements.

Now, we present to you the new HS-AirSynErgy. This new generation of Bag Filters is made of synthetic media outmatch most customary Pocket Filter with synthetic or glass fiber media in accordance to mechanic filtration, durability as well as energy potential.

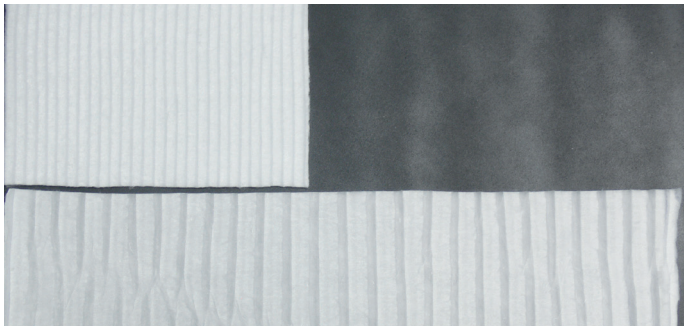
- **Energy potential: Meet your ecological aims**
  Other than common Bag Filters, the inner wave from structure of the media offers twice the active filtration surface as compared to a usual flat media. HS-AirSynErgy also features aerodynamic optimized air entry profils. When in use, this gives this product a 35 percent lower pressure difference compared to other high quality products. This will save you up to 1100 KW/h per year (equals app. 620 kg CO2 /p.a).
- **Durability**
  The new structure enables the filter to hold up to 80 percent more dust. This gives you a longer lifespan without the negative energy-efficiency that one will see when using other common filter.
- **No electrostatic – better for hygienic, pure air**
  In order to match the standard EN779:2012, HS-AirSynErgy does not need electrostatic charge. Nevertheless, a constantly increasing efficiency within the entire lifespan is guaranteed.
- **Guaranteed: free of glass fibre - even wit EN779:2012**
  HS-AirSynErgy filtration media is solely made from synthetic fibers – as are all our Bag Filter media. The fibers are flexible and fracture-proof. A displeasing fibre shedding that we often see while unpackung or handling with glass fibers is therefor abrogated.
- **Certified quality**
  Better save than sorry! We have instructed two independent institutes to check the performance of HS-AirSynErgy. Read more on the following page.

HS-AirSynErgy in F7 & F9

Like all present HS-Pocket Filter, HS-AirSynErgy also features an aerodynamic air entry profiles to reduce the pressure drop.



Easy to notice: The cross section illustrates that the waved structure offers a much larger filtration surface in the same dimensions as usual flat media.



As can be seen here, the elongated version of the waved media is twice as large as the common non-waved version. This lowers the pressure drop for filters and gives the user the maximum dust holding capacity.

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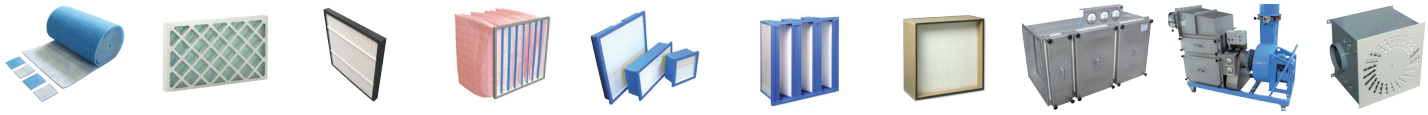
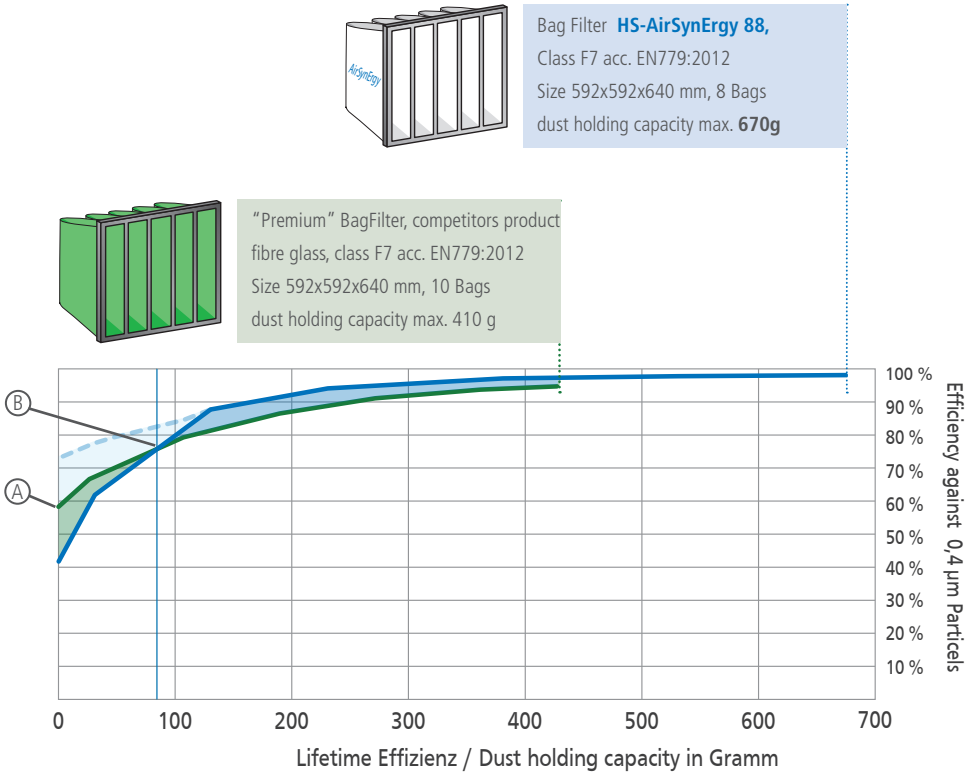


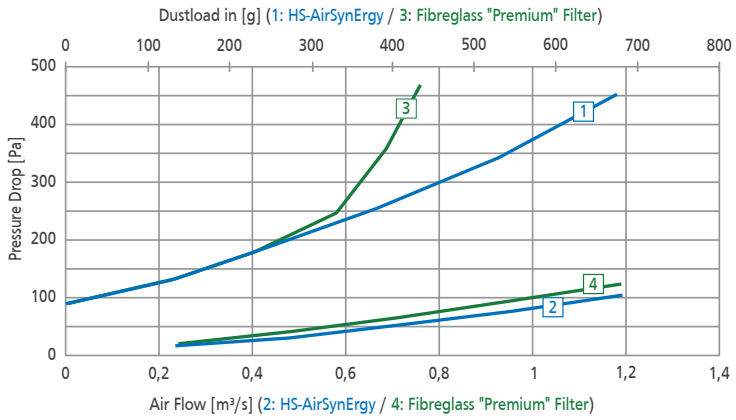
HS-AirSynErgy in comparison to Premium-Fiberglass Bag Filters

We did some comparison measurements between a commonly used premium air filter in accordance to classification EN779:2012 F7 and the new HS-AirSynErgy 88. The former is equipped with fiberglass and ten filter bags; the HS-AirSynErgy 88 has only eight bags. The lifetime-diagram below clearly states that the premium filter Ⓐ offers a better M.E. (minimum efficiency) in the beginning. After only a short operation time it is considerably and permanently outperformed by the HS-AirSynErgy 88, Ⓑ though. Over the entire life-span, the long-time efficiency of our product is notably better – and will therefor porvide a highly improved the indoor environment. A up to 80 percent higher lifespan also reduces your maintenance costs.



Even with the formation of pressure drops due to large dust occurrences, the compared filter **[3]** gives up faster than our product. HS-AirSynErgy 88 **[1]** will be in use much longer and saves you energy costs.

With varying flow rates the pressure difference of HS-AirSynErgy 88 **[2]** is always about 10% lower in comparison to the other filter **[4].** When it come to cost of operation, this will give you a definite advantage with HS-AirSynErgy 88.



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