STANDARD AND HIGH CAPACITY PLEAT



Precision machine fabrication and consistent quality



Extremely durable, heavy weight media



New design adds rigidity and increased strength with metal backing



DESCRIPTION

The NEW Air Handler Pleat is the next generation of extended surface pleated filters. The construction process is automated ensuring consistent quality, uniform appearance and performance. This pleat has eliminated the inconsistencies in pleat spacing, material variations and poor construction common to hand assembled pleated filters.

APPLICATIONS

This filter is designed for use in nearly all commercial, industrial and healthcare facilities. It can be used as the primary filter or as a prefilter to higher efficiency final filters. The filter is suitable for environments ranging from dry and harsh to high humidity.

This pleated filter also offers increased efficiency and considerably more surface area for applications requring higher levels of efficiency and service life.



STANDARD AND HIGH CAPACITY PLEAT

Featuring a wired back media, the pleated filter will last longer with more strength and endurance.

The pleated filter's die cut allows it to have more support and frame strength, guaranteeing its durability, even through the dustiest months.

The pleated filter passes Apendix J, which means it is now guanteed to maintain its maximum efficiency through the duration of its change-out life span.

The NEW Air Handler Pleat has an average pressure drop that is significantly lower than the previous model which means saving energy and saving overall costs.





ENGINEERING SPEFICIATIONS



Media shall be 100% synthetic media that does not support microbial growth



Frame shall be a heavy-duty, high-strength, moisture resistant beverage board



Filters shall be rated to withstand a continuous operating temperature of up to 150°F and have a recommended final resistance of 1.0" w.g.

DIMENSIONS AND PART #S

Nom	inal Size	e (In.)	Standard	High
Н	W	D	Capacity	Capacity
10	10	2	5W977	6B987
10	20	2	6C514	6B985
12	20	2	5E878	6B977
12	24	2	2W234	6B975
14	20	2	6C515	6B969
14	25	2	6C516	6B966
15	20	2	6C517	6B963
16	16	2	5W978	6B958
16	20	2	2W230	6B956
16	24	2	5W979	6B952
16	25	2	2W231	6B950
18	18	2	1TBE5	1TBE7
18	20	2	1TBE4	1TBE6
18	22	2	5E879	6B945
18	24	2	5W514	6B943
18	25	2	5E880	6B940
20	20	2	2W232	6B937
20	24	2	5W515	6B933
20	25	2	2W233	6B930
20	30	2	2GGT6	2GGT9
24	24	2	2W235	6B924
25	25	2	6C518	6B920

PERFORMANCE RESULTS

	Initial Resistance @	Initial Resistance @	
Product	300 fpm	500 fpm	MERV
SC Pleat	0.16	0.30	7
HC Pleat	0.15	0.30	8

For our complete line of filters, visit grainger.com/airhandler

Air W Handler®

1" STANDARD AND HIGH CAPACITY PLEAT





DIMENSIONS AND PART #S

Nom	inal Size	e (ln.)	Standard	High
Н	W	D	Capacity	Capacity
8	16	1	5W967	6B917
8	30	1	6B989	6B916
10	10	1	5W968	6B988
10	20	1	5W890	6B986
10	24	1	5W969	6B984
10	25	1	5E998	6B983
10	30	1	6U583	6B982
12	12	1	4E505	6B981
12	16	1	5E874	6B980
12	18	1	6U582	6B979
12	20	1	6C519	6B978
12	24	1	4E437	6B976
12	25	1	6C520	6B973
12	30	1	6U581	6B972
12	30.63	1	6B999	6B971
14	20	1	5W891	6B970
14	24	1	5W970	6B968
14	25	1	5W892	6B967
14	30	1	6B998	6B965
15	20	1	5W893	6B964
15	25	1	5W971	6B962
15	30	1	6B997	6B961
15	30.63	1	6B996	6B960

Nom	inal Size	e (ln.)	Standard	High
Н	W	D	Capacity	Capacity
16	16	1	5W972	6B959
16	20	1	5W509	6B957
16	22.25	1	6B995	6B954
16	24	1	5W973	6B953
16	25	1	5W510	6B951
16	30	1	1TBE8	1TBE9
18	18	1	5E875	6B948
18	20	1	5W974	6B947
18	22	1	5E876	6B946
18	24	1	5W975	6B944
18	25	1	6C521	6B941
19	27	1	6B994	6B939
20	20	1	5W511	6B938
20	22.25	1	6B993	6B935
20	24	1	5W976	6B934
20	25	1	5W512	6B931
20	30	1	6B992	6B928
22	22	1	5E877	6B927
22	24.25	1	6B991	6B926
24	24	1	5W513	6B925
24	30	1	6B990	6B922
25	25	1	6C522	6B921

4" STANDARD AND HIGH CAPACITY PLEAT



Moisture resistant 100% synthetic media



Longer service life means lower operating costs



Maximum recommended continuous operating temperature of 150°F



DESCRIPTION

The Air Handler Pleated Air Filter incorporates moisture resistant, 100% synthetic media. The 4" filters handle velocities up to 625 fpm.

The media is bonded to a metal grid on exiting side, preventing fluttering and maintaining uniformity of pleats. The filter pack is enclosed in a heavy duty, moisture resistant, die-cut frame that will not warp, crack or distort under normal operating conditions.

Front and back media retainers are an integral part of the filter frame. The media pack is bonded to every part of the frame, preventing any possibility of air by-pass.

BENEFITS

The Air Handler Pleated Filters accumulate the heavier, more restrictive particles at the bottom of the pleats, leaving the sides open longer for effective filtration. Its media is engineered to provide maximum efficiency. In general, deeper pleats result in longer filter life and more time between changeouts.

- -Rigid construction with consistent media extends the service life
- -Well-built, efficient and easy-tohandle medium efficiency filters
- -Low initial pressure drop
- -Consistent efficiency results

APPLICATIONS

The Air Handler Pleat can be used without modification in side-access housing or built-up filter banks. They offer better efficiency than convential permanent or disposable filters.

These pleated filters may be used as pre-filters, substantially extending the life of more expensive highefficiency filters. They are the perfect solution for residential, commercial and industrial use.



4" STANDARD AND HIGH CAPACITY PLEAT

ENGINEERING SPECIFICATIONS

XX

Media shall be 100% synthetic media that does not support microbial growth.



Frame shall be a heavy-duty, high strength, moisture resistant chipboard with a cross member design that increases rigidity and prevents breaching. Frame shall be recyclable.

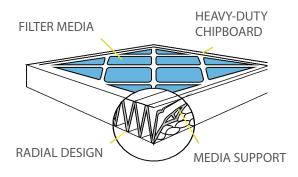


Filters shall have an expanded metal support grid bonded to the air-exiting side of the filter to maintain pleat uniformity and prevent fluttering. Metal support grid shall be recyclable and contain a significant amount of post-consumer and preconsumer content.

DIMENSIONS & PART #S

Nominal Size	Std Capacity MERV 7	High Capacity MERV 8
12x24x4	2W238	6B974
16x20x4	5W516	6B955
16x25x4	5W517	6B949
18x24x4	5W518	6B942
20x20x4	2W236	6B936
20x24x4	5C437	6B932
20x25x4	2W237	6B929
24x24x4	2W239	6B923
25x29x4	5C436	6B919
28x30x4	5C435	6B918

PLEAT ADVANCEMENTS



PERFORMANCE RESULTS

Product	Initial Resistance @ 300/500 fpm	Initial Resistance @ 500/625 fpm	MERV
SC PLEAT - 4" Depth	0.12	0.18	7
HC PLEAT - 4" Depth	0.22	0.35	8

*Test data results are based on a 24 x 24 x 2 filter



MERV 10 PLEAT



Replaces MERV 7 and 8 pleated filters



Extremely low resistance of 0.25" w.g. means improved airflow and lower energy costs



100% syntehtic media is moisture resistant and will no promote biological growth



Available in 77 sizes



DESCRIPTION

The new Air Handler MERV 10 pleated air filter utilizes a state of the art 100% synthetic media to achieve exceptionally high levels of efficiency with the lowest resistance to air flow available.

The media is laminated to an expanded metal grid on the air exiting side to provide exceptional strength during installation. The media support grid prevents fluttering and maintains pleat uniformity for optimum performance. The filter pack is enclosed in a heavy-duty, moisture resistant die-cut frame that will not warp, crack or distort under normal operating conditions.

The 1" and 2" depth filters handle air velocities up to 500 fpm; 4" depth filters up to 625 fpm. The Air Handler pleats are recommended for most commercial and industrial applications to protect people and equipment or as pre-filters to even higher efficiency air filters.

BENEFITS

The improved Air Handler MERV 10 pleated filter has independent test lab data confirming exceptionally high levels of airborne particle removal with the lowest resistance to air flow available. The filter will effectively remove airborne irritants such as pollens, molds, dander and dust.

The MERV 10 pleat can acheive a low initial resistance of 0.25" w.g. @ 500 fpm. This low resistance greatly improves air flow while dramatically reducing energy costs.

APPLICATIONS

The new MERV 10 pleated air filters are designed for use in commercial buildings, hotels, industrial filtration, airports, schools, and universities. This filter is also suitable for any other application desiring higher levels of air filtration to protect occupants from airborne irritants and protect cooling coils, ductwork, and other componets of the HVAC system.





MERV 10 PLEAT

ENGINEERING SPECIFICATIONS



Media shall be 100% synthetic media that does not support microbial growth.



Frame shall be a heavy-duty, high strength, moisture resistant chipboard with a cross member design that increases rigidity and prevents breaching. Frame shall be recyclable.



Filters shall have an expanded metal support grid bonded to the air-exiting side of the filter to maintain pleat uniformity and prevent fluttering. Metal support grid shall be recyclable and contain a significant amount of post-consumer and preconsumer content.

PERFORMANCE RESULTS

Filter Depth	Medium Velocity (fpm)	Initial Resistance Medium ("w.g.)	High Velocity (fpm)	Initial Resistance High ("w.g.)
1"	375	0.15	500	0.30
2"	375	0.11	500	0.25
4"	500	0.11	625	0.25

^{*}Test data results are based on a 24 x 24 x 2 filter size.

APPLICATION PARAMETERS

Recommended Temperature	200°F
Flammability:	UL Classified
Media:	100% Synthetic
Recommended Final Pressure Drop:	1.0" w.g.

DIMENSIONS & PART #S

Nor	minal Size	(in.)	Grainger	No	minal Size	(in.)	Grainger	Not	minal Size	(in.)	Grainger	Nor	ninal Size	(in.)	Grainger
Н	W	D	#	Н	W	D	#	Н	W	D	#	Н	W	D	#
8	16	1	4YUP6	15	20	1	4YUT7	20	25	1	4YUV8	18	20	2	4YUX9
8	30	1	4YUP7	15	25	1	4YUT8	20	30	1	4YUV9	18	22	2	4YUY1
10	10	1	4YUP8	15	30	1	4YUT9	22	22	1	4YUW1	18	24	2	4YUY2
10	20	1	4YUP9	15	30.63	1	4YUU1	22	24.25	1	4YUW2	18	25	2	4YUY3
10	24	1	4YUR1	16	16	1	4YUU2	24	24	1	4YUW3	20	20	2	4YUY4
10	25	1	4YUR2	16	20	1	4YUU3	24	30	1	4YUW4	20	24	2	4YUY5
10	30	1	4YUR3	16	22.25	1	4YUU4	25	25	1	4YUW5	20	25	2	4YUY6
12	12	1	4YUR4	16	24	1	4YUU5	10	10	2	4YUW6	20	30	2	4YUY7
12	16	1	4YUR5	16	25	1	4YUU6	10	20	2	4YUW7	24	24	2	4YUY8
12	18	1	4YUR6	16	30	1	4YUU7	12	20	2	4YUW8	25	25	2	4YUY9
12	20	1	4YUR7	18	18	1	4YUU8	12	24	2	4YUW9	12	24	4	4YUZ1
12	24	1	4YUR8	18	20	1	4YUU9	14	20	2	4YUX1	16	20	4	4YUZ2
12	25	1	4YUR9	18	22	1	4YUV1	14	25	2	4YUX2	16	25	4	4YUZ3
12	30	1	4YUT1	18	24	1	4YUV2	15	20	2	4YUX3	18	24	4	4YUZ4
12	30.63	1	4YUT2	18	25	1	4YUV3	16	16	2	4YUX4	20	20	4	4YUZ5
14	20	1	4YUT3	19	27	1	4YUV4	16	20	2	4YUX5	20	24	4	4YUZ6
14	24	1	4YUT4	20	20	- 1	4YUV5	16	24	2	4YUX6	20	25	4	4YUZ7
14	25	1	4YUT5	20	22.25	- 1	4YUV6	16	25	2	4YUX7	24	24	4	4YUZ8
14	30	1	4YUT6	20	24	1	4YUV7	18	18	2	4YUX8	25	29	4	4YUZ9
												28	30	4	4YVA1



MERV 11 PLEAT



Initial efficiency is over 2 times greater than traditional cotton poly



Synthetic, 100% moisture resistant media



Long service life means lower operating costs



Lower initial pressure drop



A wide range of sizes in 1", 2" and 4" thickness



DESCRIPTION

The MERV 11 pleated filters incorporate a 100% synthetic media with an ASHRAE 52.2 MERV 11 (Minimum Efficiency Reporting Value). The 1" and 2" filters handle velocities up to 500 FPM—the 4" filters up to 625 FPM.

The media is laminated to an expanded metal support grid on the air-exiting side, preventing fluttering and maintaining uniformity of the pleats. The filter pack is enclosed in a heavy-duty, moisture resistant, diecut frame that will not warp, crack, or distort under normal operating conditions.

Diagonal front and back media retainers are an integral part of the filter frame. The media pack is bonded to every part of the frame, preventing any possibility of air by-pass. Integral pleat separators on the 4" filter provide additional pleat stabilization for the most demanding applications.

BENEFITS

It is possible for a flat filter to face load, thus restricting air-flow and creating unnecessary strain on equipment. The MERV 11 filters accumulate heavier, more restrictive particles at the bottom of the pleats, leaving the sides open longer for effective filtration. The MERV 11 filter is engineered to provide maximum efficiency. In general, deeper pleats result in longer life and more time between change-outs.

APPLICATIONS

These filters can be used without modification in side-access filter housing or built-up filter bank. They offer better efficiency than conventional permanent or disposable flat filters.

The MERV 11 filters, when used as prefilters, substantially extend the life of more expensive highefficiency filters. They are the perfect filters for residential, commercial and industrial use.

MERV 11 PLEAT

ENGINEERING SPECIFICATIONS



Media shall be 100% synthetic media that does not support microbial growth.



Frame shall be a heavy-duty, high strength, moisture resistant chipboard with a cross member design that increases rigidity and prevents breaching.



Filters shall have 100% recycled postconsumer recycled expanded metal support grid bonded to the air-exiting side of the filter to maintain pleat uniformity and prevent fluttering. Metal grid shall be recyclable.

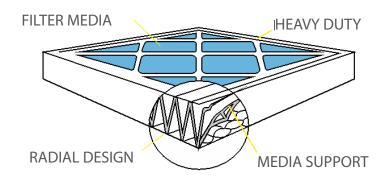


Filters shall be rated to withstand a continuous operating temperature of up to 150°F and have a recommended final resistance of 1.0" w.g.

PERFORMANCE RESULTS

Filter Depth	Medium Velocity (fpm)	Initial Resistance Medium ("w.g.)	High Velocity (fpm)	Initial Resistance High ("w.g.)
1"	375	0.33	500	0.38
2"	375	0.21	500	0.30
4"	500	0.22	625	0.30

PLEAT ADVANCEMENTS



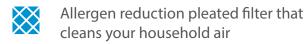
DIMENSIONS & PART #S

Nor	minal Size	(in.)	Grainger	Noi	minal Size	(in.)	Grainger	No	minal Size	(in.)	Grainger	Nor	minal Size	(in.)	Grainger
Н	W	D	#	Н	W	D	#	Н	W	D	#	Н	W	D	#
8	16	- 1	2JWA9	15	20	1	2DYR4	20	25	1	2DYT8	18	20	2	2GHX7
8	30	- 1	3DVJ4	15	25	1	2DYR5	20	30	1	2GJA7	18	22	2	2DYV5
10	10	- 1	2DYP1	15	30	1	3DVJ8	22	22	1	2DYT9	18	24	2	2DYV6
10	20	- 1	2DYP2	15	30.63	1	3DVP9	22	24.25	1	3DVR1	18	25	2	2DYV7
10	24	- 1	2DYP3	16	16	1	2DYR6	24	24	1	2DYU1	20	20	2	2DYV8
10	25	1	2DYP4	16	20	1	2DYR7	24	30	1	3DVK2	20	24	2	2DYD3
10	30	1	3DVJ5	16	22.25	1	3GUX9	25	25	1	2DYU2	20	25	2	2DYD7
12	12	- 1	2DYP5	16	24	1	2DYR8	10	10	2	2DYU3	20	30	2	2GHZ5
12	16	1	2DYP6	16	25	1	2DYR9	10	20	2	2DYU4	24	24	2	2DYE2
12	18	- 1	3DVJ6	16	30	1	3DVJ9	12	20	2	2DYU5	25	25	2	2DYE6
12	20	1	2DYP7	18	18	1	2DYT1	12	24	2	2DYU6	12	24	4	2DYE9
12	24	1	2DYP8	18	20	1	2DYT2	14	20	2	2DYU7	16	20	4	2DYF4
12	25	1	2DYP9	18	22	1	2DYT3	14	25	2	2DYU8	16	25	4	2DYF8
12	30	1	3DVJ7	18	24	1	2DYT4	15	20	2	2DYU9	18	24	4	2DYG3
12	30.63	1	3DVP8	18	25	1	2DYT5	16	16	2	2DYV1	20	20	4	2DYG7
14	20	1	2DYR1	19	27	1	3DVK1	16	20	2	2DYV2	20	24	4	2DYH2
14	24	1	2DYR2	20	20	1	2DYT6	16	24	2	2DYV3	20	25	4	2DYH6
14	25	1	2DYR3	20	22.25	1	3GUY1	16	25	2	2DYV4	24	24	4	2DYJ1
14	30	1	3GUX8	20	24	1	2DYT7	18	18	2	3DVK3	25	29	4	2DYJ4
	•					•				•		28	30	4	2DYJ8





MERV 12 PLEAT













HOW DOES THE AIR HANDLER MICROSTATIC FILTER MAKE OUR HOUSEHOLD AIR CLEANER?

When your central air conditioner or furnace runs, the fan circulates the air in your house through the filter, which grabs the larger particles. By adding an electrostatic charge to the fibers, even extremely small particles like bacteria can be pulled out of the air.

HOW OFTEN DO I NEED TO CHANGE MY FILTER?

The guideline for normal use is 90 days. Factors that might cause shorter use would be anything that puts additional stress on the air flow system, such as construction projects that might generate particles through sanding or sawing, smokers or several pets in the house, duct work that has dirt beyond "normal", or if you run your fan continuously. As you monitor your filters, you will determine what is appropriate for your household.

WHAT ABOUT RESTRICTED AIR-FLOW WITH THIS FILTER?

Flat fiberglass filters have historically been used, but as the fibers trap dust, the air flow decreases. With the pleated structure of this filter, particles are trapped and eventually collect in the "valleys" of the pleats, without restricting the air flow in most of the filter. This structure allows for much longer use of the filter compared to flat style filters.



MERV 12 PLEAT

HOW TO INSTALL YOUR NEW FILTER

The first step is to remove the packaging material from the filter. This includes the plastic shrink wrap and the informational insert. Do not remove the cardboard frame from the pleated element. After removing the spent filter, install your new filter with the air-flow arrow pointing towards the furnace or air conditioner. Be sure to monitor the performance of your system after installing the new filter to ensure that appropriate airflow levels are maintained.

WHAT DOES MERV 12 MEAN?

MERV (Minimum Efficiency Reporting Value) is a standard developed by the American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE) to help consumers compare filter efficiency at 1.5 meters per second. In general, the higher the MERV, the more efficient the air filter. MERV 12 is one of the highest values attainable for a one-inch residential filter.

DIMENSIONS & PART #S

Noi	Grainger		
Н	W	D	#
15	20	1	1MBE4
16	20	1	1MBE3
16	25	1	1MBE1
20	20	1	1MBD9
20	25	1	1MBE2
24	24	1	1MBE5

MINIMUM EFFICIENCY REPORTING VALUES

MERV Rating (ASHRAE 52.2)	0.3-1.0 Microns	Particle Size	3.0-10.0 Microns	Average Dust Spot Efficiency (ASHRAE 52.1)	Euro Class (EN	Typical Airborne Contaminant	Typical Application
1	·		< 20%	< 20%	G1	> 10.0 Microns	
2	ě	·	< 20%	< 20%	G2	Pollen	
3			< 20%	< 20%	G2	Dust Mites	Minimal Filtration Residential
4			< 20%	< 20%	G2	Paint Spray	Window A/C Units
						Textile Fibers Carpet Fibers	Equipment Protection
5			20 - 35%	25 - 30%	G3	3.0 - 10.0 Microns	
6			35 - 50%	25 - 30%	G3	Mold Spores	
7			50 - 70%	25 - 30%	G4	Hair Spray	Commercial Buildings
8			70 - 85%	25 - 30%	G4	Fabric Protector	Industrial Workplace
						Dusting Aids Cement Dust	Paint Booth Applications
9		< 50%	> 85%	40 - 50%	F5	1.0 - 3.0 Microns	
10		50 - 65%	> 85%	50 - 60%	F5	Legionella	Superior Residential
11		65 - 80%	> 85%	60 - 70%	F6	Humidifier Dust	Better Commercial
12	•	80 - 90%	> 90%	70 - 80%	F6	Lead Dust	Hospital Laboratories
						Milled Flour Auto Emissions	Welding Booth
13	< 75%	> 90%	> 90%	80 - 90%	F7	.30 -1.0 Microns	
14	75 - 85%	> 90%	> 90%	90 - 95%	F8	All Bacteria	Superior Commercial
15	85 -95%	> 90%	> 90%	95 - 98%	F9	Most Tobacco Smoke	General Surgery
16	> 95%	> 95%	> 95%	98+%	F9	Proplet Nuceli	Hospital Rooms
							Smoke Removal

For our complete line of filters, visit grainger.com/airhandler

Find it at Grainger.

