



Clean Liquid Systems LLC

20150 Kuykendahl Rd. Unit 200

Spring, TX 77379

Ph: 713-253-0100 / 713-253-5001

www.cleanliquidsystems.com

Technical Data

MERV 11 Pleated Filters **with Nano fiber**

MERV 11 filters with Nano fiber are an excellent option for applications where improvements in system restriction are needed, but a high level of efficiency is still demanded.

Our unique nanofiber media is not subject to efficiency loss during operation.

What if we told you nearly every other HVAC filter on the market wouldn't actually measure MERV 11 during its operational life? As odd as it seems that's exactly the case.

The reason for it is because of old, antiquated technology. Most of the high efficiency filter media on the market has a static charge to temporarily and artificially inflate their efficiencies. The science behind this is simple. The larger fibers have inherently poor distribution in the typical filter media make it impossible to attain MERV 11 at an acceptable restriction without statically changing the media.

The problem is, as the filter loads with dust, these electret charged fibers become blocked and the charge is lost, causing the filter to slowly lose efficiency. You can think of it like socks fresh out of the dryer - they have been statically charged by rubbing on other articles of clothing. For a **short period** that sock wants to stick to everything....

We have a problem with "for a short period", we feel that selling you something that does not stay MERV 11 is not exactly ethical.

What's so different about the our nanofiber enhanced filters?

We use nanofibers to mechanically filter out particulate, meaning the filter doesn't lose efficiency during operation. In fact its efficiency increases as it gets dirty. The nanofibers are excellent at delivering high mechanical efficiency with extremely low pressure drop due to their extremely uniform distribution and diameters of less than 150 nanometer. Our nanofiber media delivers a reduction in carbon footprint of 70% or more over most electrostatic media. The really good thing about nanofiber is just a little bit gets you a whole lot of performance. This allows our filters to be built with less media weight, meaning lower restrictions, less plastics in the landfill, and a whole lot less petrochemicals to make them.

Features:

Mechanical efficiency using the latest cutting-edge nanofiber technology

No efficiency loss due to electrostatic charge loss

Low pressure drop Media with a 70% reduction in carbon footprint compared to electrostatic media

MERV 11 Filters available in depths of 1", 2" & 4"

**other depths available upon request for justified quantities





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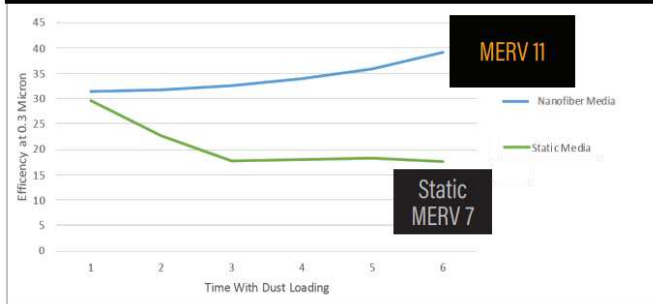
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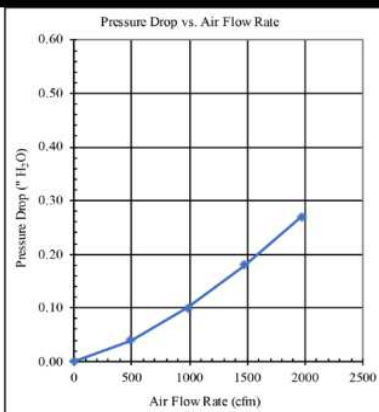
SPECIFICATIONS

Efficiency per 52.2 @ 1968 CFM	MERV 11
Filter Depths Available	1", 2", and 4"
Pleat Quantity	10 Pleats / foot Standard Cap 15 Pleats / foot High Cap
Media Type	Nanofiber Synthetic

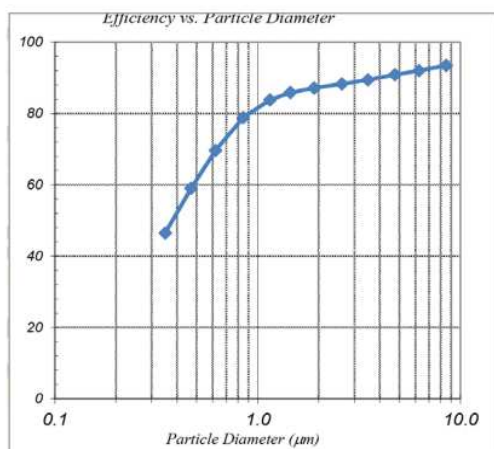
Nano Media vs. Electrostatics



Pressure Drop vs. Flow Rate



Efficiency vs. Particle Diameter



1 Inch Actual Size Part Numbers

16 x 25 x 1	15 1/2 x 24 1/2 x 3/4	P11-16251 (H or S)
20 x 25 x 1	19 1/2 x 24 1/2 x 3/4	P1120251 (H or S)
20 x 20 x 1	19 1/2 x 19 1/2 x 3/4	P11-20201 (H or S)
14 x 24 x 1	13 1/2 x 23 1/2 x 3/4	P11-14241 (H or S)
14 x 25 x 1	13 1/2 x 24 1/2 x 3/4	P11-14251 (H or S)
16 x 20 x 1	15 1/2 x 19 1/2 x 3/4	P11-16201 (H or S)
12 x 24 x 1	11 1/2 x 23 1/2 x 3/4	P11-12241 (H or S)
24 x 24 x 1	23 1/2 x 23 1/2 x 3/4	P11-24241 (H or S)
20 x 24 x 1	19 1/2 x 23 1/2 x 3/4	P11-20241 (H or S)
14 x 20 x 1	13 1/2 x 19 1/2 x 3/4	P11-14201 (H or S)
18 x 24 x 1	17 1/2 x 23 1/2 x 3/4	P11-18241 (H or S)
20 x 30 x 1	19 1/2 x 29 1/2 x 3/4	P11-20301 (H or S)
24 x 30 x 1	23 1/2 x 29 1/2 x 3/4	P11-24301 (H or S)

2 Inch Actual Size Part Numbers

25 x 25 x 2	24 3/8 x 24 3/8 x 1 3/4	P11-25252 (H or S)
24 x 30 x 2	23 3/8 x 29 3/8 x 1 3/4	P11-24302 (H or S)
24 x 24 x 2	23 3/8 x 23 3/8 x 1 3/4	P11-24242 (H or S)
20 x 35 x 2	19 3/8 x 34 3/8 x 1 3/4	P11-20322 (H or S)
20 x 30 x 2	19 3/8 x 29 3/8 x 1 3/4	P11-20302 (H or S)
20 x 25 x 2	19 3/8 x 24 3/8 x 1 3/4	P11-20252 (H or S)
20 x 24 x 2	19 3/8 x 23 3/8 x 1 3/4	P11-20242 (H or S)
20 x 20 x 2	19 3/8 x 19 3/8 x 1 3/4	P11-20202 (H or S)
18 x 25 x 2	17 3/8 x 24 3/8 x 1 3/4	P11-18252 (H or S)
18 x 24 x 2	17 3/8 x 23 3/8 x 1 3/4	P11-18242 (H or S)
18 x 20 x 2	17 3/8 x 19 3/8 x 1 3/4	P11-18202 (H or S)
18 x 18 x 2	17 3/8 x 17 3/8 x 1 3/4	P11-18182 (H or S)
16 x 30 x 2	15 3/8 x 29 3/8 x 1 3/4	P11-16302 (H or S)
16 x 25 x 2	15 3/8 x 23 3/8 x 1 3/4	P11-16252 (H or S)
16 x 24 x 2	15 3/8 x 19 3/8 x 1 3/4	P11-16242 (H or S)
16 x 20 x 2	15 3/8 x 19 3/8 x 1 3/4	P11-16202 (H or S)
16 x 16 x 2	15 3/8 x 15 3/8 x 1 3/4	P11-16162 (H or S)
15 x 20 x 2	14 3/8 x 24 3/8 x 1 3/4	P11-15252 (H or S)
14 x 25 x 2	13 1/2 x 24 1/2 x 1 3/4	P11-14252 (H or S)
14 x 24 x 2	13 3/8 x 23 3/8 x 1 3/4	P11-14242 (H or S)
14 x 20 x 2	13 3/8 x 19 3/8 x 1 3/4	P11-14202 (H or S)
12 x 25 x 2	11 3/8 x 24 3/8 x 1 3/4	P11-12252 (H or S)
12 x 24 x 2	11 3/8 x 23 3/8 x 1 3/4	P11-12242 (H or S)
12 x 20 x 2	11 3/8 x 19 3/8 x 1 3/4	P11-12202 (H or S)
10 x 20 x 2	9 3/8 x 19 3/8 x 1 3/4	P11-10202 (H or S)

4 Inch Actual Size Part Numbers

16 x 25 x 4	15 3/8 x 24 3/8 x 3 5/8	P11-16254 (H or S)
20 x 20 x 4	19 3/8 x 19 3/8 x 3 5/8	P11-20204 (H or S)
20 x 25 x 4	19 3/8 x 24 3/8 x 3 5/8	P11-20254 (H or S)

High Capacity
 2" = 15 pleats per ft
 1" = 15
 4" = 13

Standard Capacity
 2" = 10 pleat per ft
 1" = 13
 4" = 9