



Z-LINE® SERIES MR-11

High Performance Pleat

FEATURES

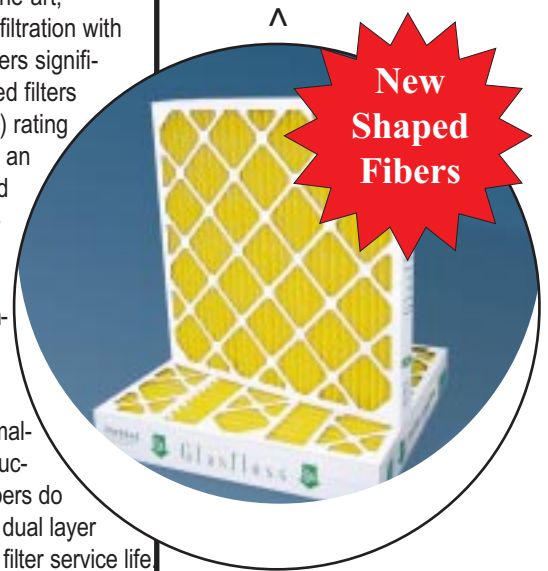
The Glasfloss Z-Line MR-11 pleated air filter utilizes state-of-the-art, “shaped fiber” media technology, providing high performance filtration with low pressure drop for energy efficiency. The Z-Line MR-11 offers significantly higher particulate removal efficiency than regular pleated filters and achieves a MERV 11 (Minimum Efficiency Reporting Value) rating under the ASHRAE 52.2 Test Standard. The Z-Line MR-11 is an excellent primary filter and can be used as a pre-filter to extend the life of more expensive secondary filtration products. Z-Line MR-11 filtration media offers excellent bi-directional strength and the continuous synthetic fibers resist shedding. The Z-Line MR-11 is available in most standard and special size face dimensions in 1”, 2”, 4” and 6” thickness.

CONSTRUCTION

Glasfloss Z-Line Series MR-11 filtration media incorporates 100% synthetic fibers which are electrostatically charged, thermally bonded and are manufactured in an engineered gradient structure that creates a dual layer media. The thermally bonded fibers do not absorb moisture and will not support microbial growth. The dual layer fiber construction supports high dust holding capacity and long filter service life. Z-Line MR-11 media is laminated to a heavy-duty, galvanized, rust resistant metal backing that stabilizes the media during operation. The pleats are formed in a radial configuration to ensure proper dust loading. The pleated media pack is adhered to the peripheral interior of a heavy-duty, beverage board, die cut frame to prevent air bypass. The beverage board frame creates a double-wall thickness around the perimeter of the filter.

APPLICATIONS

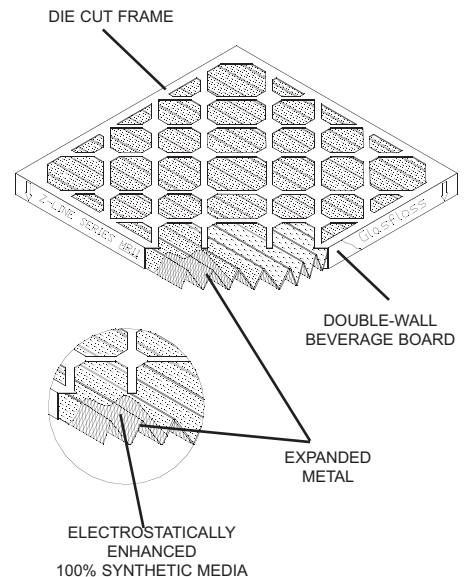
The Glasfloss Z-Line Series MR-11 High Performance Pleat Series is the perfect upgrade from regular pleated filters, poly ring panels or standard disposable panel filters. Z-Line MR-11 is ideal where previous higher efficiency filters are too restrictive to the flow of air. Whether used as a primary filter or a pre-filter, the Glasfloss Z-Line MR-11 is ideal in a variety of commercial, industrial applications and offers high particulate removal efficiency with low pressure drop.



- MERV 11
- Electrostatically Charged 100% Synthetic Media
- Heavy-duty Moisture Resistant Construction
- Shaped Fiber Technology
- Standard Size 4” and 6” Incorporate Media Separators

SPECIFICATIONS

The Glasfloss Z-Line Series MR-11 air filter shall be of the extended surface pleated media type. The media incorporates 100% synthetic fibers that are electrostatically charged. The filter fibers are thermally bonded and manufactured in an engineered gradient structure. An expanded metal reinforcement shall be laminated to the air leaving side of the media by a thermo-setting adhesive to maintain continuity of the radial pleats. The expanded metal shall be galvanized to resist rust and corrosion. The media shall be pleated in a tapered radial configuration. The pleated cartridge shall be bonded to the peripheral interior of the outer frame. A heavy-duty, moisture resistant beverage board shall be utilized for an encasing frame. The frame shall be internally laminated to the pleated cartridge apexes. Z-Line MR-11 Series filters shall be rated Class 2 under U.L. std. 900. Z-Line MR-11 filters shall be rated to withstand temperatures up to 180 degrees Fahrenheit. Z-Line MR-11 Series filters shall be rated MERV 11 when tested in accordance with the ASHRAE 52.2 Test Standard. Z-Line MR-11 shall have an Initial Dust Spot Efficiency of 51% and an Average Dust Spot Efficiency of 56% when tested in accordance with ASHRAE 52.1 Test Standard.





Z-LINE® SERIES MR-11

High Performance Pleat

Z-LINE SERIES MR-11 STANDARD SIZE FILTERS

MODEL NUMBER	SIZE W x H x D NOMINAL	SIZE W x H x D EXACT	RATED VELOCITY FPM	INITIAL RESIST. IN. W.G.	MEDIA SQUARE FEET	SIZE W x H x D NOMINAL MM	RATED VELOCITY M/H	INITIAL RESIST. PASCALS
M1110101	10 x 10 x 1	9-1/2 x 9-1/2 x 7/8	300	0.24	1.61	254 x 254 x 26	5490	59.7
M1110201	10 x 20 x 1	9-1/2 x 19-1/2 x 7/8	300	0.24	2.67	254 x 508 x 26	5490	59.7
M1112121	12 x 12 x 1	11-1/2 x 11-1/2 x 7/8	300	0.24	2.06	305 x 305 x 26	5490	59.7
M1112201	12 x 20 x 1	11-1/2 x 19-1/2 x 7/8	300	0.24	3.29	305 x 508 x 26	5490	59.7
M1112241	12 x 24 x 1	11-3/8 x 23-3/8 x 7/8	300	0.24	3.96	305 x 610 x 26	5490	59.7
M1114201	14 x 20 x 1	13-1/2 x 19-1/2 x 7/8	300	0.24	3.91	356 x 508 x 26	5490	59.7
M1114241	14 x 24 x 1	13-1/2 x 23-1/2 x 7/8	300	0.24	4.70	356 x 610 x 26	5490	59.7
M1114251	14 x 25 x 1	13-1/2 x 24-1/2 x 7/8	300	0.24	4.90	356 x 635 x 26	5490	59.7
M1115201	15 x 20 x 1	14-1/2 x 19-1/2 x 7/8	300	0.24	4.11	381 x 508 x 26	5490	59.7
M1116201	16 x 20 x 1	15-1/2 x 19-1/2 x 7/8	300	0.24	4.32	406 x 508 x 26	5490	59.7
M1116241	16 x 24 x 1	15-1/2 x 23-1/2 x 7/8	300	0.24	5.20	406 x 610 x 26	5490	59.7
M1116251	16 x 25 x 1	15-1/2 x 24-1/2 x 7/8	300	0.24	5.41	406 x 635 x 26	5490	59.7
M1118201	18 x 20 x 1	17-1/2 x 19-1/2 x 7/8	300	0.24	4.94	457 x 610 x 26	5490	59.7
M1118241	18 x 24 x 1	17-1/2 x 23-1/2 x 7/8	300	0.24	5.94	457 x 610 x 26	5490	59.7
M1118251	18 x 25 x 1	17-1/2 x 24-1/2 x 7/8	300	0.24	6.19	457 x 635 x 26	5490	59.7
M1120201	20 x 20 x 1	19-1/2 x 19-1/2 x 7/8	300	0.24	5.55	508 x 508 x 26	5490	59.7
M1120241	20 x 24 x 1	19-3/8 x 23-3/8 x 7/8	300	0.24	6.68	508 x 610 x 26	5490	59.7
M1120251	20 x 25 x 1	19-1/2 x 24-1/2 x 7/8	300	0.24	6.96	508 x 635 x 26	5490	59.7
M1120301	20 x 30 x 1	19-3/8 x 29-3/8 x 7/8	300	0.24	8.23	508 x 726 x 26	5490	59.7
M1124241	24 x 24 x 1	23-3/8 x 23-3/8 x 7/8	300	0.24	7.92	610 x 610 x 26	5490	59.7
M1125251	25 x 25 x 1	24-1/2 x 24-1/2 x 7/8	300	0.24	8.51	635 x 635 x 26	5490	59.7
M1110202	*10 x 20 x 2	9-1/2 x 19-1/2 x 1-3/4	500	0.31	6.24	254 x 508 x 51	9150	77.1
M1112202	*12 x 20 x 2	11-1/2 x 19-1/2 x 1-3/4	500	0.31	7.20	305 x 508 x 51	9150	77.1
M1112242	12 x 24 x 2	11-3/8 x 23-3/8 x 1-3/4	500	0.31	8.66	305 x 610 x 51	9150	77.1
M1114202	14 x 20 x 2	13-1/2 x 19-1/2 x 1-3/4	500	0.31	8.64	356 x 508 x 51	9150	77.1
M1114252	14 x 25 x 2	13-1/2 x 24-1/2 x 1-3/4	500	0.31	10.83	356 x 635 x 51	9150	77.1
M1115202	15 x 20 x 2	14-1/2 x 19-1/2 x 1-3/4	500	0.31	9.12	381 x 508 x 51	9150	77.1
M1116202	16 x 20 x 2	15-1/2 x 19-1/2 x 1-3/4	500	0.31	9.60	406 x 508 x 51	9150	77.1
M1116242	16 x 24 x 2	15-1/2 x 23-1/2 x 1-3/4	500	0.31	11.55	406 x 610 x 51	9150	77.1
M1116252	16 x 25 x 2	15-1/2 x 24-1/2 x 1-3/4	500	0.31	12.03	406 x 635 x 51	9150	77.1
M1118202	18 x 20 x 2	17-1/2 x 19-1/2 x 1-3/4	500	0.31	11.04	457 x 610 x 51	9150	77.1
M1118242	18 x 24 x 2	17-1/2 x 23-1/2 x 1-3/4	500	0.31	13.28	457 x 610 x 51	9150	77.1
M1118252	*18 x 25 x 2	17-1/2 x 24-1/2 x 1-3/4	500	0.31	13.84	457 x 635 x 51	9150	77.1
M1120202	20 x 20 x 2	19-1/2 x 19-1/2 x 1-3/4	500	0.31	12.00	508 x 508 x 51	9150	77.1
M1120242	20 x 24 x 2	19-3/8 x 23-3/8 x 1-3/4	500	0.31	14.43	508 x 610 x 51	9150	77.1
M1120252	20 x 25 x 2	19-1/2 x 24-1/2 x 1-3/4	500	0.31	15.04	508 x 635 x 51	9150	77.1
M1124242	24 x 24 x 2	23-3/8 x 23-3/8 x 1-3/4	500	0.31	17.61	610 x 610 x 51	9150	77.1
M1125252	25 x 25 x 2	24-1/2 x 24-1/2 x 1-3/4	500	0.31	18.65	635 x 635 x 51	9150	77.1
M1112244	12 x 24 x 4	11-3/8 x 23-3/8 x 3-3/4	500	0.25	13.61	305 x 610 x 102	9150	62.2
M1116204	16 x 20 x 4	15-1/2 x 19-1/2 x 3-3/4	500	0.25	15.43	406 x 508 x 102	9150	62.2
M1116254	16 x 25 x 4	15-1/2 x 24-1/2 x 3-3/4	500	0.25	19.34	406 x 635 x 102	9150	62.2
M1118244	18 x 24 x 4	17-1/2 x 23-1/2 x 3-3/4	500	0.25	21.03	457 x 610 x 102	9150	62.2
M1120204	20 x 20 x 4	19-1/2 x 19-1/2 x 3-3/4	500	0.25	18.52	508 x 508 x 102	9150	62.2
M1120244	20 x 24 x 4	19-3/8 x 23-3/8 x 3-3/4	500	0.25	22.27	508 x 610 x 102	9150	62.2
M1120254	20 x 25 x 4	19-1/2 x 24-1/2 x 3-3/4	500	0.25	23.20	508 x 635 x 102	9150	62.2
M1124244	24 x 24 x 4	23-3/8 x 23-3/8 x 3-3/4	500	0.25	27.21	610 x 610 x 102	9150	62.2
M1125294	*25 x 29 x 4	24-1/2 x 28-1/2 x 3-3/4	500	0.25	34.80	635 x 737 x 102	9150	62.2
M1112246	12 x 24 x 6	11-3/8 x 23-3/8 x 5-3/4	500	0.22	20.86	305 x 610 x 152	9150	54.7
M1116206	16 x 20 x 6	15-1/2 x 19-1/2 x 5-3/4	500	0.22	23.66	406 x 508 x 152	9150	54.7
M1116256	16 x 25 x 6	15-1/2 x 24-1/2 x 5-3/4	500	0.22	29.65	406 x 635 x 152	9150	54.7
M1118246	18 x 24 x 6	17-1/2 x 23-1/2 x 5-3/4	500	0.22	32.24	457 x 610 x 152	9150	54.7
M1120206	20 x 20 x 6	19-1/2 x 19-1/2 x 5-3/4	500	0.22	28.39	508 x 508 x 152	9150	54.7
M1120246	20 x 24 x 6	19-3/8 x 23-3/8 x 5-3/4	500	0.22	34.14	508 x 610 x 152	9150	54.7
M1120256	20 x 25 x 6	19-1/2 x 24-1/2 x 5-3/4	500	0.22	35.58	508 x 635 x 152	9150	54.7
M1124246	24 x 24 x 6	23-3/8 x 23-3/8 x 5-3/4	500	0.22	41.73	610 x 610 x 152	9150	54.7

+/- 1/8" for height, width and +/- 1/16" for depth. Recommended final resistance is 1.00" w.g.

* Utilizes four piece frame construction.

Pleats Per Lineal Foot

DEPTH	
1"	16
2"	15
4"	11
6"	11

Media Area to Face Area Ratio

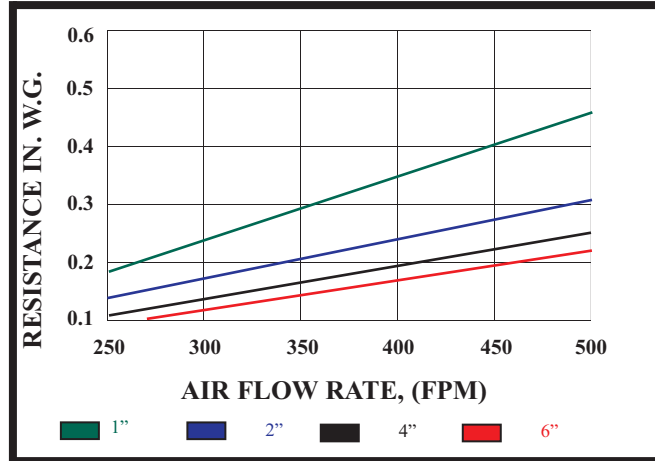
DEPTH	"MR-11"
1"	1.97
2"	4.40
4"	6.80
6"	9.98



Z-LINE® SERIES MR-11
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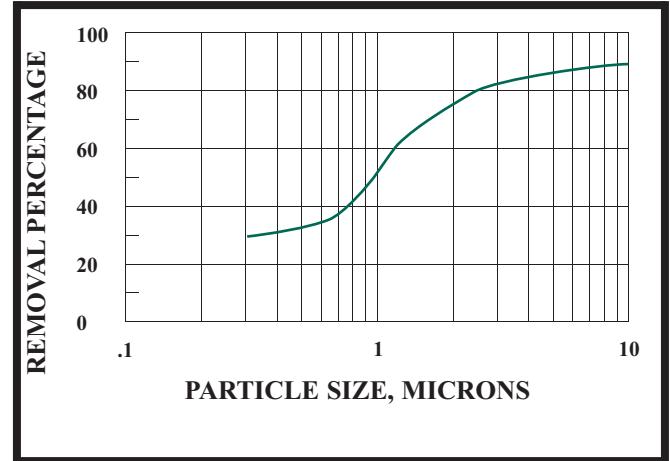
STANDARD PRESSURE DROP

Test Filter Size 24" x 24" x 2" Nominal



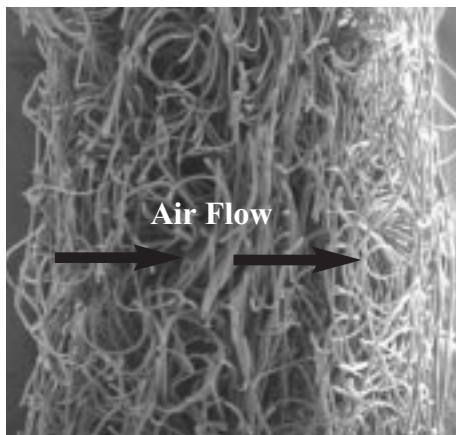
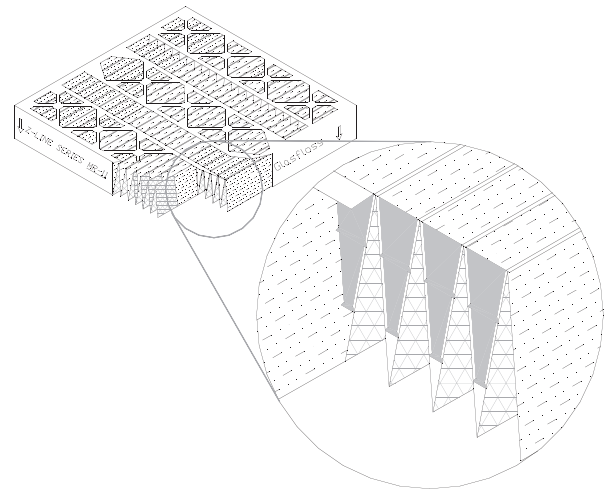
MINIMUM PARTICLE SIZE EFFICIENCY

Test Filter Size 24" x 24" x 2" Nominal



The Glasfloss Z-Line Series MR-11 pleated filter provides high filtration performance with low-pressure drop. Z-Line MR-11 incorporates thermally bonded, electrostatically charged, 100% synthetic fibers structured in a dual layer, engineered gradient structure. The media of the Z-Line MR-11 supports depth loading of particles and high dust holding capacity. The media has excellent bi-directional strength and the continuous fibers do not shed. Regular pleated filters may take several days or weeks to gradually become more efficient as the filter gets dirty, but the Z-Line MR-11 offers high initial and sustained efficiency from the start. The fibers do not absorb moisture and will not support microbial growth. The Z-Line MR-11 is used in a variety of installations from pre-filter for high efficiency filters to primary filters. Z-Line MR-11 pleated filters are used to improve Indoor Air Quality (IAQ) in many applications. The Z-Line MR-11 is offered in standard and special face dimensions in 1", 2", 4" and 6" depths and are U.L. Rated Class 2. The standard sizes of 4" and 6" filters shall incorporate media separators.

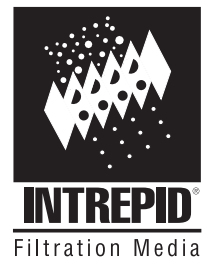
4" MR-11 Incorporates Media Separators



Intrepid® Media utilizes shaped fiber technology in an engineered gradient structure, enhanced by an electrostatic charge. Combined, these features provide high initial and sustained filtration efficiency for excellent performance. Glasfloss Z-Line Series pleated filters incorporate Intrepid® Filtration Media and offer the following advantages:

- 100% Synthetic Fibers
- Stable Media Charge
- High Initial Efficiency
- Thermally Bonded
- Fibers Resist Shedding
- Media Does Not Absorb Moisture
- Continuous Fibers
- No Chemical Binders

POWERED BY



Cross Section View of Intrepid Media Magnified 30x.
Photo Provided by Kimberly-Clark

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High Performance Pleat



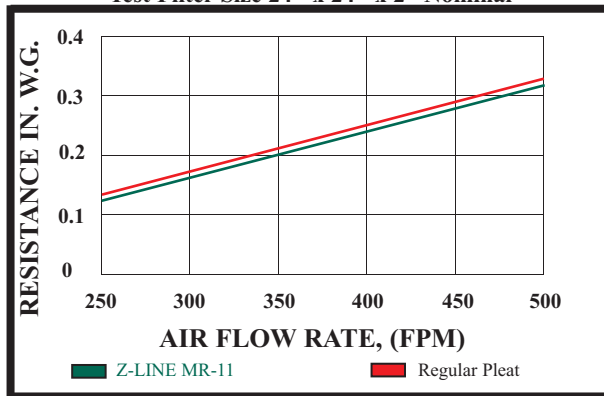
Z-LINE SERIES MR-11 FEATURES

- MERV 11
- Electrostatically Charged Fibers Increase Initial Efficiency
- Low Pressure Drop
- High Dust Holding Capacity
- Thermally Bonded, 100% Synthetic Fibers
- Media Will Not Support Microbial Growth
- Ideal Upgrade From Regular Pleats, Poly Panels & Disposable Filters
- Excellent Pre-filter or Primary Filter
- Wide Range of Standard & Special Sizes

Comparison of Glasfloss Z-Line Series MR-11 Pleat to a Regular Pleat

STANDARD PRESSURE DROP

Test Filter Size 24" x 24" x 2" Nominal



MINIMUM PARTICLE SIZE EFFICIENCY

Test Filter Size 24" x 24" x 2" Nominal

