



## GLOBAL SUPPORT



- Facilities in 37 countries
- 40 manufacturing plants and 14 distribution centers
- Sales offices worldwide

## LEADING TECHNOLOGY



- Over 1,000 engineers and scientists worldwide
- Broad range of innovative collectors and filters
- 100s of filter media formulations

## EXPERIENCE & SERVICE



- Technical expertise and support
- Ready-to-ship filters and parts within 24 hours
- 1,000,000+ dust, fume, and mist collectors installed



**Call Donaldson Torit  
to get Cleaner Air today  
800-365-1331  
donaldsontorit.com**

Donaldson®  
Torit®

**DALAMATIC®**  
**DUST COLLECTORS**

**DURA-LIFE™**  
**Twice The Life Filter Bags**



## PROVEN PERFORMANCE, COMPACT DESIGN

The versatile Donaldson® Torit® Dalamatric series of dust collectors deliver a powerful solution for nearly any dust filtration application. These collectors come in two models: the Dalamatric Cased (DLMC) is a stand alone collector that can be ducted to many different applications; the Dalamatric Insertable (DLMV) is a versatile collector that can be inserted into various applications, such as bins, silos, bunkers, storage vessels or transfer points. Both models are continuous-duty dust collectors designed to handle the most difficult product recovery applications.

### The Dalamatric Features:

- **CONTINUOUS COLLECTION**  
Provides continuous filtration of high dust concentrations at high filtration velocities and constant levels of resistance in almost any industry and application.
- **COMPACT DESIGN**  
Unique modular design allows for installation in the most space restricted areas. Envelope-shaped bags maximize the amount of media in a given space and allow for increased space between bags, minimizing the chances of bridging.
- **DURA-LIFE™ BAG FILTERS**  
Provide better surface loading and better pulse cleaning reducing maintenance and operating costs.
- **VERSATILITY**  
A full range of sizes and types of bags are available for a wide variety of dust collection applications.
- **10-YEAR WARRANTY**



DLMC 3/7/15

# SIMPLY THE BEST

DUST COLLECTORS AVAILABLE  
with Dura-Life™ Twice the Life Bag Filters

## FLEXIBLE, EFFECTIVE FILTER MEDIA

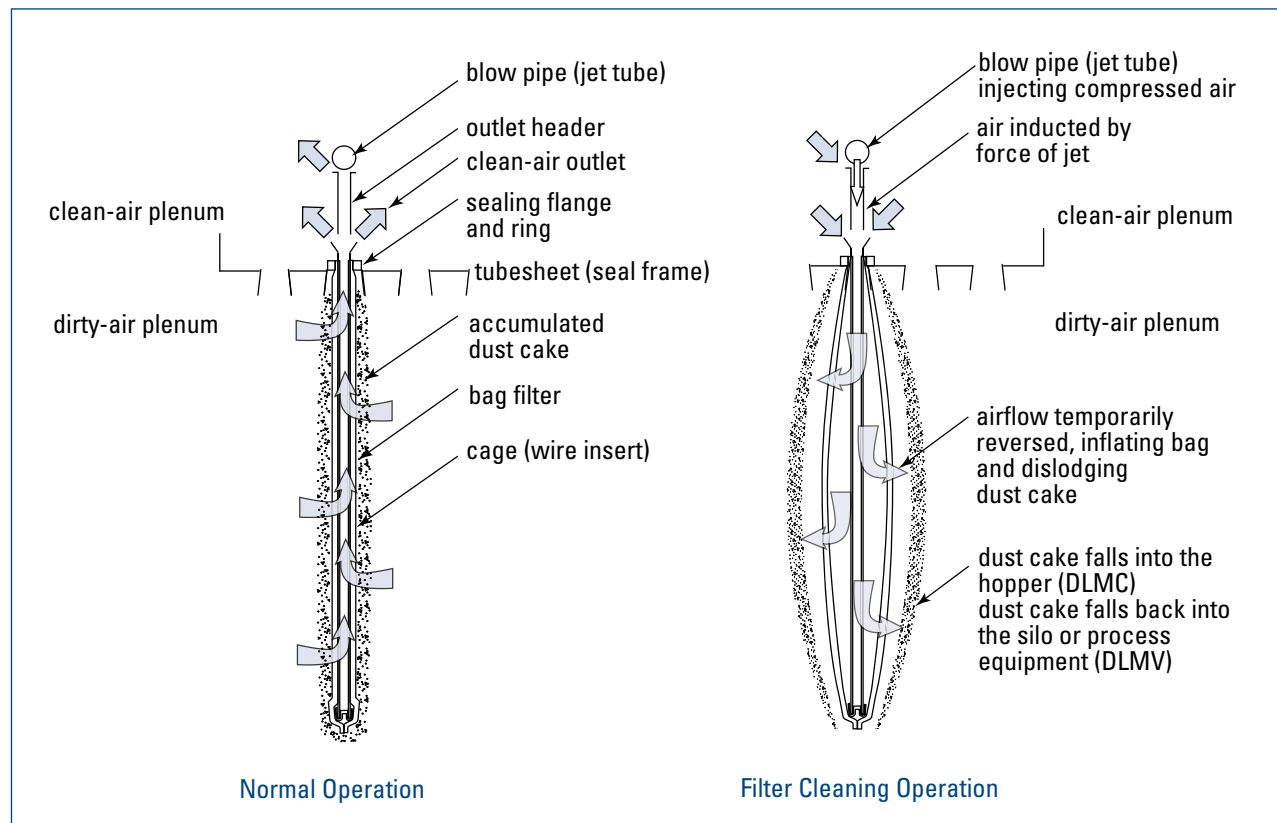
### UNIQUE BAG DESIGN

The Dalamatic advantage is found in the breakthrough technology of Dura-Life bag filters in an envelope shape. The envelope shape provides greater movement of the bag to dislodge more challenging dust cakes during filter pulsing.

- Dust accumulates on the outer surface of the filter bag as air penetrates the media.
- The blowpipe (jet tube) injects a burst of compressed air into the bag filter.
- Airflow is then briefly reversed, inflating the bag filter and dislodging dust.
- The dislodged dust cake falls into the collection hopper for final removal or directly back in the process. The envelope-shaped bag filter, which is mounted on a unique wire frame, ensures optimum airflow and thorough cleaning.

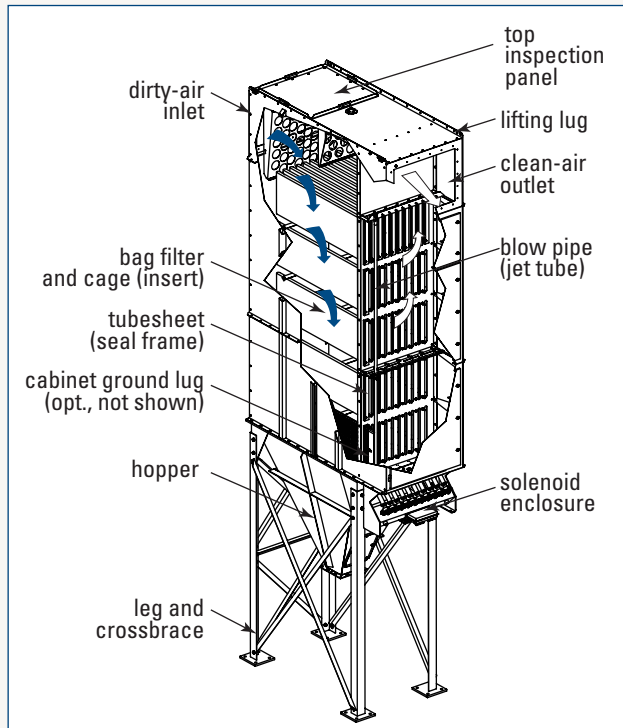


**DLMV 45/15**

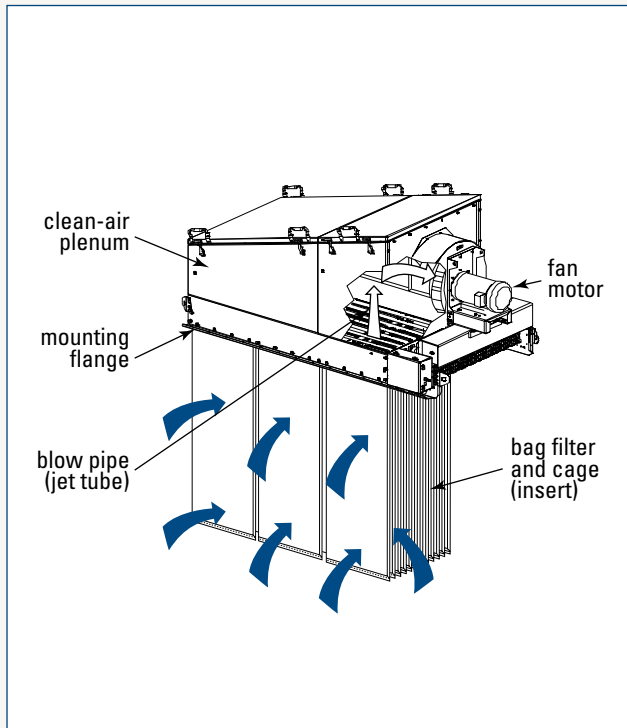


### PRINCIPLES OF FILTRATION

## SIZES &amp; OPERATIONS



NORMAL OPERATION FOR MODELS DLMC



NORMAL OPERATION FOR MODELS DLMV

## DALAMATIC CASED (DLMC)

- Envelope-shaped bags provide maximum filter area per given space and ensure efficient cleaning
- Air volumes range from 1500 to 85,000 cfm
- Modular design gives dimensional and capacity flexibility
- Downward airflow pattern minimizes dust re-entrainment
- Side doors provide easy, clean side access to filters.
- Standard leg pack meets IBC 2003 requirements

## DALAMATIC INSERTABLE (DLMV)

- Five configurations to suit most process applications
- Uses positive pressure of the conveying air or can be fan powered for pneumatic conveying applications
- Bags can be installed hanging vertically, horizontally or any angle in between
- Can be inserted into hood enclosures at belt transfer points, bucket elevator casings, ribbon blenders and receiving hoppers for clamshell unloaders
- Insertable approach reduces or eliminates ducting costs; minimized ducting can also result in reduced energy costs

## DURA-LIFE™ — A TECHNOLOGY BREAKTHROUGH FOR BAG USERS

### STANDARD IN ALL DONALDSON TORIT DALAMATIC BAGHOUSE COLLECTORS

Traditional 16 oz. polyester bags are produced with a needling process that creates larger pores where dust can embed into the fabric, inhibiting cleaning and reducing bag life. Dura-Life bags are engineered with a unique hydroentanglement process that uses water to blend the fibers. This process provides a more uniform material with smaller pores, better surface loading, and better cleaning. These advantages provide twice the operating life before bags need to be replaced due to high pressure drop. Longer life from Dura-Life bags lowers maintenance and operating costs and raises baghouse dust collection to a whole new level.



**Dura-Life Bag-Clean Air Side**  
(300x)



**Polyester Bag-Clean Air Side**  
(300x)

These photos were taken with a scanning electron microscope of bag media used in a collector that was filtering fly ash. The bags were removed after 2,700 hours of use. Air-to-media ratio was 4.5 to 1. Pressure drop was 6 in. on polyester bags and 2 in. on Dura-Life.

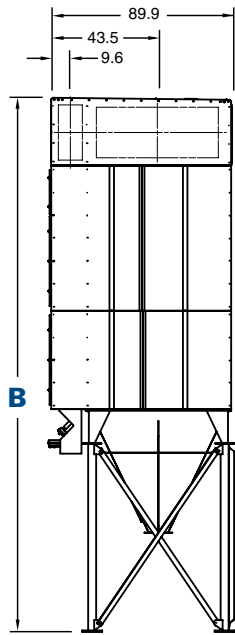
### DURA-LIFE BAGS PROVIDE BIG BENEFITS

Dura-Life technology provides better surface loading and better pulse cleaning, resulting in:

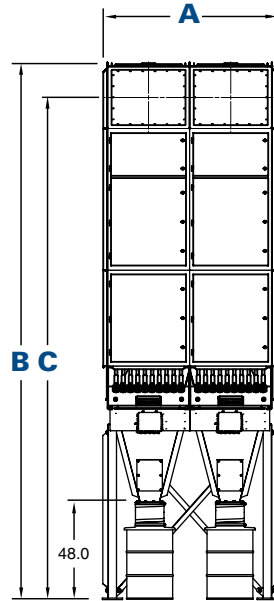
- Two to three times longer bag life
- Energy savings due to lower pressure drop
- Reduced replacement bag costs due to fewer bag changeouts
- Reduced maintenance and operating costs due to fewer bag changeouts
- 30% fewer emissions based on EPA tests



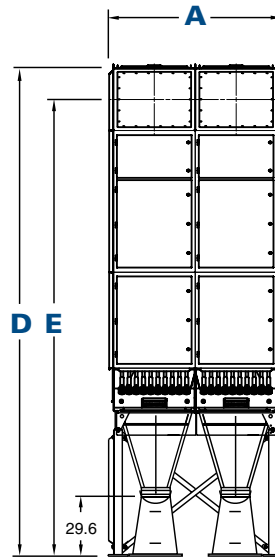
CASED DIMENSIONS & SPECIFICATIONS



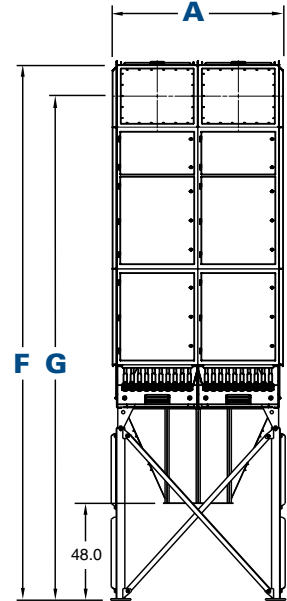
Side View  
Pyramid Hopper  
(2/5/15 Model)



Pyramid Hopper\*  
(2/5/15 Model)



UMA Hopper  
(2/5/15 Model with  
4 cu. ft. Bins)



Trough Hopper  
(2/5/15 Model)

DLMC Model	Nominal Airflow Range (cfm)**	Cloth Area (ft <sup>2</sup> )	No. of Banks	No. of Tiers	No. of Bags	No. of Valves	Shipping Weight (lbs)		
							With Pyramid Hopper	With Hopper for UMA 4 cu. ft. Bin	With Trough Hopper
1/2/15	1,290 - 3,550	323	1	2	20	10	2,810	2,630	N/A
1/3/15	1,940 - 5,335	485	1	3	30	10	3,147	2,971	N/A
1/4/15	2,580 - 7,095	645	1	4	40	10	3,705	3,600	N/A
2/2/15	2,580 - 7,095	645	2	2	40	20	4,220	3,495	4,100
1/5/15	3,240 - 8,910	810	1	5	50	10	4,130	3,950	N/A
2/3/15	3,880 - 10,670	970	2	3	60	20	4,890	4,750	4,910
1/7/15	4,520 - 12,430	1,130	1	7	70	10	5,300	5,100	N/A
2/4/15	5,160 - 14,190	1,290	2	4	80	20	6,100	5,800	5,960
3/3/15	5,815 - 15,990	1,454	3	3	90	30	7,100	6,740	6,700
2/5/15	6,480 - 17,820	1,620	2	5	100	20	7,065	6,770	6,940
2/6/15	7,750 - 21,315	1,938	2	6	120	20	8,015	7,720	7,890
3/5/15	9,690 - 26,650	2,423	3	5	150	30	9,950	9,590	9,545
2/8/15	10,335-28,420	2,584	2	8	160	20	9,550	9,255	9,420
3/6/15	11,625 - 31,975	2,907	3	6	180	30	11,360	11,000	10,955
4/5/15	12,920 - 35,530	3,230	4	5	200	40	12,670	12,185	11,862
3/7/15	13,565 - 37,310	3,392	3	7	210	30	12,470	12,110	12,065
3/8/15	15,500 - 42,635	3,876	3	8	240	30	13,595	13,235	13,200
4/8/15	20,670 - 56,845	5,168	4	8	320	40	17,765	17,280	16,960

\* With optional 55-gallon drum adapter (drum not included).

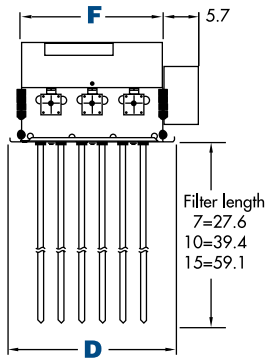
\*\* Based on clean filters.

## CASED DIMENSIONS &amp; SPECIFICATIONS

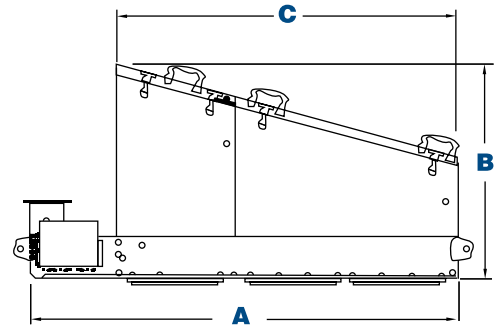
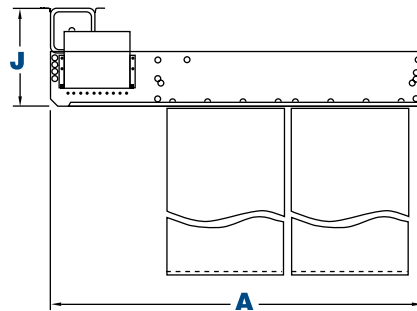
DLMC Model	Dimensions (inches)						
	A	Pyramid		UMA		Trough	
		B	C	D	E	F	G
1/2/15	45.5	175.7	162.7	151.9	138.9	N/A	N/A
1/3/15	45.5	198.5	185.5	174.7	161.7	N/A	N/A
1/4/15	45.5	238.2	216.8	214.4	193.0	N/A	N/A
1/5/15	45.5	263.0	241.6	239.2	217.8	N/A	N/A
1/7/15	45.5	308.7	287.3	284.9	263.5	N/A	N/A
2/2/15	85.0	175.7	162.7	151.9	138.9	169.7	156.7
2/3/15	85.0	198.5	185.5	174.7	161.7	192.5	179.5
2/4/15	85.0	238.2	216.8	214.4	193.0	232.8	210.7
2/5/15	85.0	263.0	241.6	239.2	217.8	257.0	235.6
2/6/15	85.0	285.9	264.4	262.1	240.7	279.8	258.4
2/8/15	85.0	331.5	310.1	307.7	286.3	325.5	304.1
3/3/15	124.4	198.5	185.5	174.4	138.9	192.5	179.5
3/5/15	124.4	263.0	241.6	239.2	217.8	257.0	235.6
3/6/15	124.4	285.9	264.4	262.1	240.7	279.8	258.4
3/7/15	124.4	308.7	287.3	284.9	263.5	302.7	281.2
3/8/15	124.4	331.5	310.1	307.7	286.3	325.5	304.1
4/5/15	166.4	263.1	241.6	239.2	217.8	257.0	235.6
4/8/15	166.4	331.5	310.1	307.7	286.3	325.5	304.1

DLMC Operating Conditions	Standard	Optional
Seismic Spectral Acceleration	$S_S = 1.5$ & $S_1 = 0.6$	–
Wind Load Rating (mph)	90	–
Housing Rating ("wg)	0-20	21-45
Compressed Air Required (psig)	55-90	–
Temperature Range	15°F to 140°F	140°F to 400°F

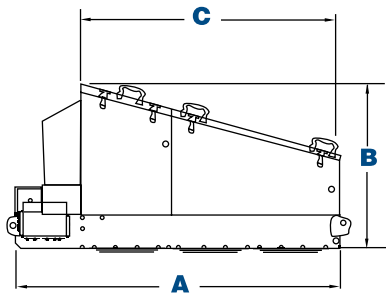
INSERTABLE DIMENSIONS & SPECIFICATIONS



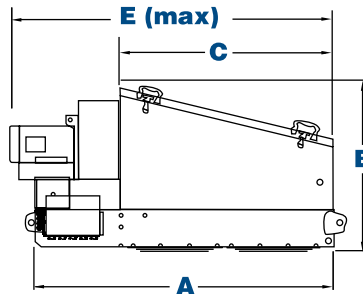
**DLMV Type B**  
Basic filter for pressure systems located indoors.



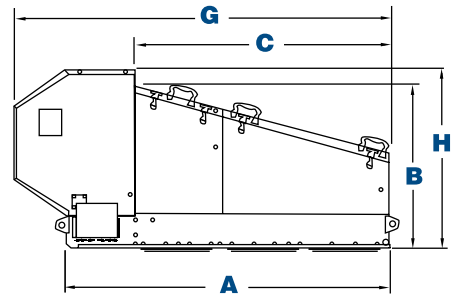
**DLMV Type H**  
(Type B plus exit header)  
Filter with exit header for connection to a fan or discharge ducting. The filter is weatherproof and suitable for indoor and outdoor application.



**DLMV Type W**  
(Type H plus weather cowl)  
Filter with a weather cowl for pressure systems where the filter is located outdoors or exposed to adverse conditions.



**DLMV Type F**  
(Type H plus integral fan)  
Weatherproof filter fitted with an integral fan for negative pressure applications.



**DLMV Type FAD**  
(Type F plus acoustic diffuser)  
Weatherproof filter fitted with an integral fan and acoustic diffuser for quiet operation.

DLMV Model	No. of Banks	Dimensions (inches)								
		A	B	C	D	E	F	G	H	J
4/7, 6/10, 9/15	6	38.3	36.8	33.8	27.5	43.1	29.1	57.4	43.3	14.7
7/7, 10/10, 15/15	10	38.3	36.8	33.8	43.3	43.1	39.8	57.4	43.3	14.7
8/7, 12/10, 18/15	12	62.2	36.8	44.5	27.6	64.0	29.1	71.6	43.3	15.7
14/7, 20/10	20	62.3	36.8	44.5	43.3	67.0	39.8	71.7	43.3	15.8
30/15	20	62.3	37.6	44.5	43.3	68.4	39.8	71.7	43.3	15.8
21/7, 30/10, 45/15	30	85.9	42.9	68.1	43.3	93.1	39.8	100.0	46.8	15.8
60/15	40	112.2	42.9	88.8	43.3	113.3	39.8	120.7	46.8	15.8

## INSERTABLE DIMENSIONS &amp; SPECIFICATIONS

DLMV Model	Nominal Airflow Range (cfm)*	Cloth Area (ft <sup>2</sup> )	4:1 cfm	6:1 cfm	8:1 cfm	No. of Valves	Fan	Motor (hp)	Shipping Weight (lbs)				
									Type B	Type H	Type W	Type F	Type FAD
4/7	215 - 555	43	172	258	344	3	F1	1	231	320	331	430	523
6/10	320 - 830	64	256	384	512	3	F1	1	251	340	351	450	543
7/7	375 - 975	75	300	450	600	5	F1 K3	1 2	353	474	485	584 595	688 699
8/7	430 - 1,115	86	344	516	688	6	F1 K3	1 2	375	518	529	628 640	727 739
9/15	485 - 1,260	97	388	582	776	3	F1 K3	1 2	273	362	373	472 483	565 576
10/10	540 - 1,400	108	432	648	864	5	F1 K3	1 2	386	507	519	617 628	721 732
12/10	645 - 1,675	129	516	774	1,032	6	K3 K5	2 3	414	558	569	679 712	778 811
14/7	750 - 1,950	150	600	900	1,200	5	K3 K5	2 3	606	794	805	915 948	1025 1058
15/15	805 - 2,090	161	644	966	1,288	5	K3 K5	2 3	423	545	556	666 699	770 803
18/15	970 - 2,520	194	776	1,164	1,552	6	K3 K5 K7	2 3 5	459	602	613	723 756 833	822 855 932
20/10	1,075 - 2,795	215	860	1,290	1,720	5	K3 K5 K7	2 3 5	672	860	871	981 1,014 1,091	1,091 1,124 1,201
21/7	1,130 - 2,935	226	904	1,356	1,808	10	K3 K5 K7	2 3 5	794	1,058	1,080	1,179 1,213 1,290	1,307 1,341 1,418
30/10	1,615 - 4,195	323	1,292	1,938	2,584	10	K5 K7 K10	3 5 7.5	893	1,157	1,179	1,312 1,389 1,561	1,440 1,517 1,689
30/15	1,615 - 4,195	323	1,292	1,938	2,584	10	K5 K7 K10	3 5 7.5	750	935	946	1,089 1,168 1,321	1,199 1,278 1,431
45/15	2,420 - 6,290	484	1,936	2,904	3,872	10	K7 K10 K11	5 7.5 10	1,003	1,268	1,290	1,499 1,671 1,758	1,627 1,799 1,886
60/15	3,230 - 8,395	646	2,584	3,876	5,168	10	K11	10	1,323	1,878	1,900	2,374	2,506

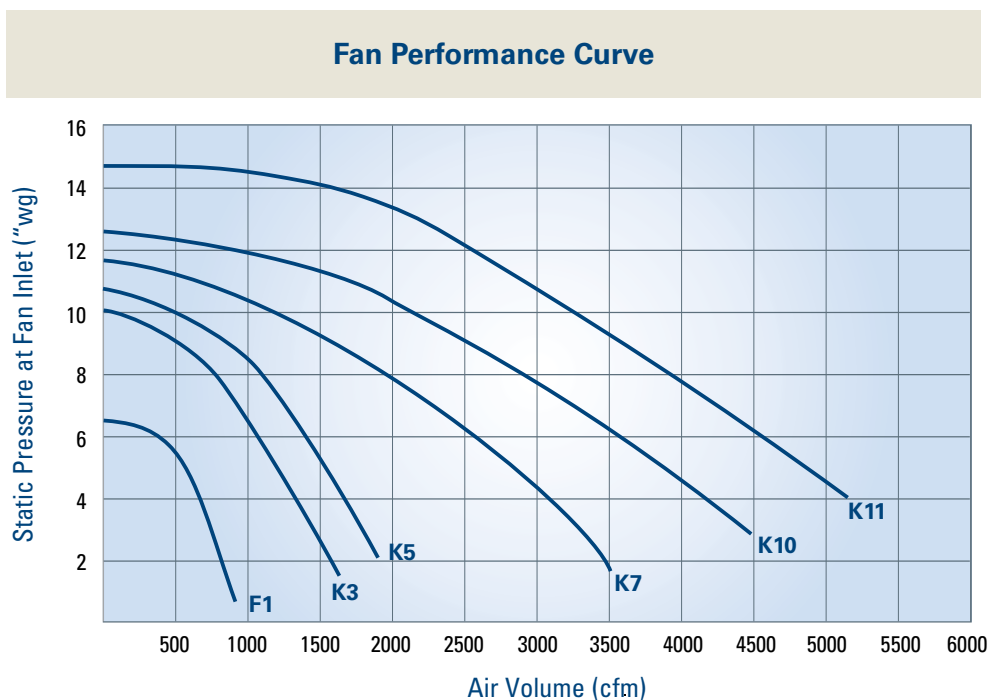
DLMV Operating Conditions	Standard	Optional
Pressure Limits	Type B, W and H: -16 "wg Type F: As fan performance curves from shut-off to ambient pressure	—
Compressed Air Required (psig)	65-90	—
Temperature Range	14°F to 140°F	140°F to 250°F (not Type F)

\* Based on clean filters.

## INSERTABLE PERFORMANCE SELECTIONS

### TO SELECT THE MOST SUITABLE FAN FOR YOUR APPLICATIONS

- Determine the air volume flow (cfm) needed to give effective venting and dust control
- Estimate pressure or suction ("wg) in the housing in which the dust filter is inserted
- Assess the operational pressure drop ("wg) across the clean side and dirty side of the filtering element – usually between 2 to 4 "wg
- The sum of 2 and 3 gives the pressure ("wg) required for fan selection purposes
- Consult graph for fan performance available



### INSERTABLE WEIGHTED SOUND PRESSURE LEVELS

All readings were taken in semi-reverberant surroundings 3'3" radius from the equipment housing and 5'3" above base level, using a precision sound level meter and octave filter.

	F1 (1 hp)	K3 (2 hp)	K5 (3 hp)	K7 (5 hp)	K10 (7.5 hp)	K11 (10 hp)
With acoustic diffuser*	76 dB(A)	73 dB(A)	74 dB(A)	76 dB(A)	79 dB(A)**	84 dB(A)
Without acoustic diffuser	91 dB(A)	89 dB(A)	92 dB(A)	93 dB(A)	94 dB(A)	97 dB(A)

Noise measurements of installed equipment may vary due to site conditions.

\* These measurements refer to standard outlet position.

\*\* Estimated data.

## STANDARD FEATURES &amp; AVAILABLE OPTIONS

## DALAMATIC CASED (DLMC)

Collector Design	Std	Opt
Mild Steel Construction	X	
Horizontal Clean-Side Bag Removal	X	
Rear Dirty-Air Plenum Access Door		X
High Temperature Construction		X
Stainless Steel Construction		X
Mountable Fan		X
Ladders, Cages, & Platform Assemblies (OSHA compliant)		X
<b>Bags &amp; Cages</b>		
Dura-Life Twice the Life Polyester Felt Bags	X	
Quick-Release Filter Clamps		X
Variety of Bag Media Options		X
Anti-Static Bag Filters		X
<b>Paint System</b>		
Powder-Coated Polyester Textured Finish	X	
Blue Exterior Finish Coating Meets 250-Hour Salt Spray Corrosion Protection Test	X	
Hostile Environment Paint		X
Custom Colors		X
<b>Hopper Design</b>		
Pyramid Hoppers	X	
Trough Hoppers	X	
2 and 3 Bank Single-Outlet Hopper	X	
UMA Hopper		X
<b>Support Structure</b>		
Standard Leg Pack	X	
Leg Extensions		X
<b>Electrical Controls, Gauges &amp; Enclosures</b>		
Solid-State Control Panels and Valves in NEMA 4 Encl.	X	
Solid-State Control Panels and Valves in NEMA 9 Encl.		X
Control Panels and Valves with Heater in NEMA 9 Encl.		X
Magnehelic®* Gauge		X
Solenoid Enclosure NEMA 9		X
Photohelic®* Gauge		X
Delta P Control, Delta P Plus Control		X
Compressed Air Filter and Regulator		X
<b>Safety Features</b>		
Sprinkler Pack		X
Explosion Vents		X
<b>Warranty</b>		
10-Year Warranty	X	

## DALAMATIC INSERTABLE (DLMV)

Collector Design	Std	Opt
Mild Steel Construction	X	
Horizontal or Vertical Bag Removal	X	
High Temperature Construction		X
Stainless Steel Construction		X
Acoustic Diffuser Silencers		X
Fans (AMCA "C" Rated) and Motors**		X
<b>Bags &amp; Cages</b>		
Dura-Life Twice the Life Polyester Felt Bags	X	
Clean-Side Bag Removal	X	
Quick-Release Filter Clamps		X
Variety of Bag Media Options		X
Anti-Static Bag Filters		X
Oleophobic Bag Filters		X
<b>Paint System</b>		
Powder-Coated Polyester Texture	X	
Blue Exterior Finish Coating Meets 250-Hour Salt Spray Corrosion Protection Test	X	
Hostile Environment Paint		X
Custom Colors		X
<b>Support Structure</b>		
Vertical or Horizontal Upstands		X
<b>Electrical Controls, Gauges &amp; Enclosures</b>		
Solid-State Control Panels and Valves in NEMA 4 Encl.	X	
Solid-State Control Panels and Valves in NEMA 9 Encl.		X
Control Panels and Valves with Heater in NEMA 9 Encl.		X
Magnehelic®* Gauge		X
Solenoid Enclosure NEMA 9		X
Photohelic®* Gauge		X
Delta P Control, Delta P Plus Control		X
Compressed Air Filter and Regulator		X
<b>Safety Features</b>		
Explosion Proof Motors		X
<b>Warranty</b>		
10-Year Warranty	X	

\* Magnehelic and Photohelic are registered trademarks of Dwyer Instruments, Inc.

\*\* All 60 Hz motors 1HP and above are compliant with EISA.