

# DustLouvre® Housing

## Inertial Separator

- **Factory assembled for easy on-site installation**
- **Self-cleaning operation**
- **Low airflow resistance**
- **Long service life**
- **Upto 92% arrestance on Arizona Road Dust Coarse (AFI)**



### Description

The Dust Louvre® Housing is a heavy duty self-cleaning filter, equipped with an inertial separator for filtration of dry, granular contaminants. Typical applications include:

- Prefilter for air conditioning and ventilating systems in heavy industrial conditions.
- Prefilter in areas with severe atmospheric conditions, such as dust and sand storms.
- Air inlet filter in all types of industrial, public and commercial buildings.

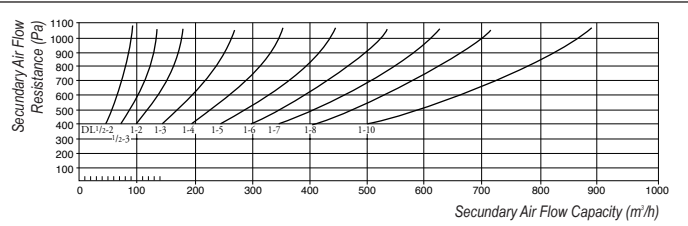
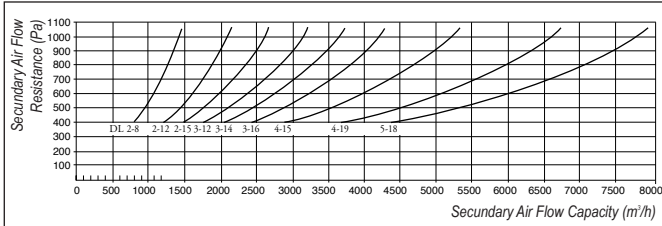
The Housing has one or more rectangular air inlet aperture(s). Behind each, a dust louvre pocket is connected to the housing. A wire mesh screen protects the aperture(s) and louvre(s). The Dust Louvre® Housing is available in nineteen sizes. The primary air capacity of each housing is determined by the pressure drop of each particular system. The recommended pressure drop range is 125 Pa to 300 Pa over the housing. The air capacity range is 540 - 80,120 m<sup>3</sup>/h. Operating Principle

Uncleaned air enters the open end of the V-shaped louvre pocket(s) and is compressed in the smaller end of the "V", where the contaminant is removed from the airstream. The clean air exits via the open louvre slots, while the dust is carried

downstream by inertia with the secondary airflow into the dust chute(s). Individual chutes are connected by an external manifold through which dust laden air is conveyed by the secondary air fan for discharge.

Style Code	Capacity in m <sup>3</sup> /h							
	125 Pa	150 Pa	175 Pa	200 Pa	225 Pa	250 Pa	275 Pa	300 Pa
DL 1/2-2	540	600	650	700	750	800	850	890
DL 1/2-3	800	890	980	1060	1130	1200	1270	1330
DL 1-2	1070	1190	1300	1410	1510	1600	1690	1780
DL 1-3	1610	1790	1950	2110	2260	2400	2540	2670
DL 1-4	2150	2380	2610	2810	3010	3200	3380	3560
DL 1-5	2690	2980	3260	3520	3770	4010	4240	4450
DL 1-6	3220	3580	3910	4230	4520	4810	5080	5340
DL 1-7	3760	4180	4560	4930	5280	5610	5930	6230
DL 1-8	4290	4770	5220	5630	6030	6410	6770	7120
DL 1-10	5370	5960	6520	7040	7540	8010	8470	8900
DL 2-8	8590	9540	10430	11270	12060	12820	13550	14520
DL 2-12	12880	14310	15640	16900	18090	19230	20310	21360
DL 2-15	16100	17890	19550	21120	22610	24030	25390	26700
DL 3-12	19320	21470	23470	25350	27130	28840	30470	32040
DL 3-14	22540	25040	27370	29570	31650	33640	35550	37380
DL 3-16	25770	28630	31300	33810	36190	38460	40640	42740
DL 4-15	32190	35770	39110	42240	45220	48060	50780	53400
DL 4-19	40790	45320	49550	53520	57290	60890	64340	67660
DL 5-18	48310	53670	58680	63380	67850	72110	76190	80120

# DustLouvre® Housing



## Selecting the Housing

The housing can be selected from the data in the primary airflow capacity table overleaf.

## Selecting the Secondary Fan

The secondary air capacity and resistance can be selected from the curves.

The secondary airflow should be set between 7% and 10% of the primary airflow. If additional ducting is required from the fan, the appropriate external resistance must be added.

## Arrestance

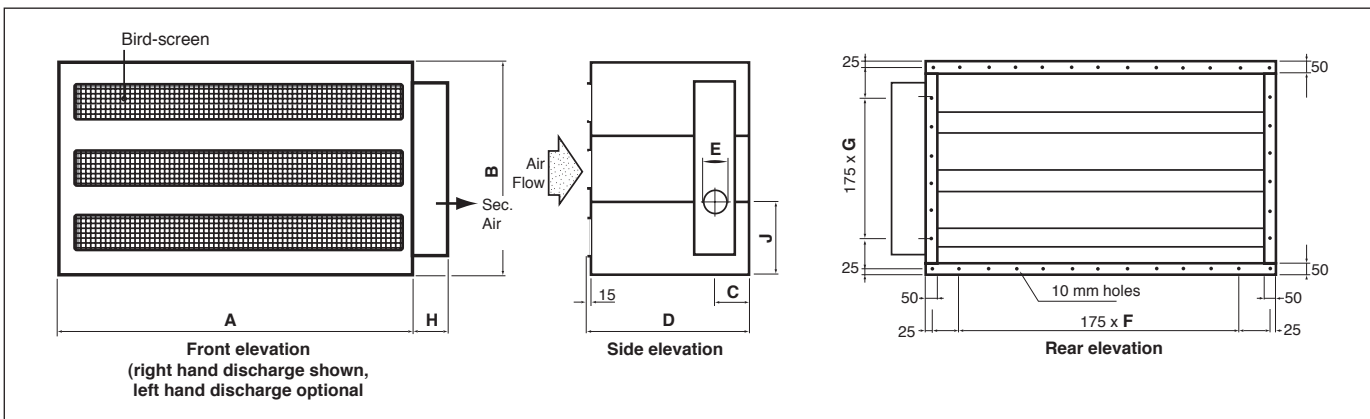
The arrestance determined by the AFI test procedure at rated air volume and 250 Pa. pressure drop is:

- 92% on Arizona Road Dust Coarse
- 78% on Arizona Road Dust Fine

## Technical Data

Housing: galvanized steel or stainless steel: upto DL 1-10, 1mm - from DL 2-8, 1.5 mm  
 Louvre pockets: galvanized steel or stainless steel  
 Wire mesh screen: galvanized steel or stainless steel  
 Manifold: galvanized steel  
 Secondary fan: direct driven centrifugal left or right hand discharge (other types available on request)

Style Code	Dimensions in mm									Weight kg
	A	B	C	D	E	F	G	H	J	
DL 1/2-2	470	400	196	850	198	2	1	17	200	26
DL 1/2-3	470	400	196	850	198	2	1	17	200	26
DL 1-2	470	400	196	850	198	2	1	17	200	26
DL 1-3	470	400	196	850	198	2	1	17	200	26
DL 1-4	594	400	196	850	198	2	1	17	200	32
DL 1-5	718	400	196	850	198	3	1	17	200	36
DL 1-6	842	400	196	850	198	4	1	17	200	42
DL 1-7	966	400	196	850	198	4	1	17	200	46
DL 1-8	1089	400	196	850	198	5	1	17	200	53
DL 1-10	1337	400	196	850	198	7	1	17	200	61
DL 2-8	1089	800	291,5	920	410	5	3	50	400	96
DL 2-12	1585	800	291,5	920	410	8	3	50	400	124
DL 2-15	1956	800	291,5	920	410	10	3	50	400	146
DL 3-12	1585	1150	291,5	920	410	8	5	75	504	174
DL 3-14	1832	1150	291,5	920	410	9	5	75	504	194
DL 3-16	2079	1150	291,5	920	410	11	5	75	504	217
DL 4-15	1956	1500	291,5	920	410	10	7	90	504	258
DL 4-19	2451	1500	291,5	920	410	13	7	90	504	318
DL 5-18	2327	1850	291,5	920	410	12	9	90	504	372



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