



air master

Chapter 14

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Exhaust air louver

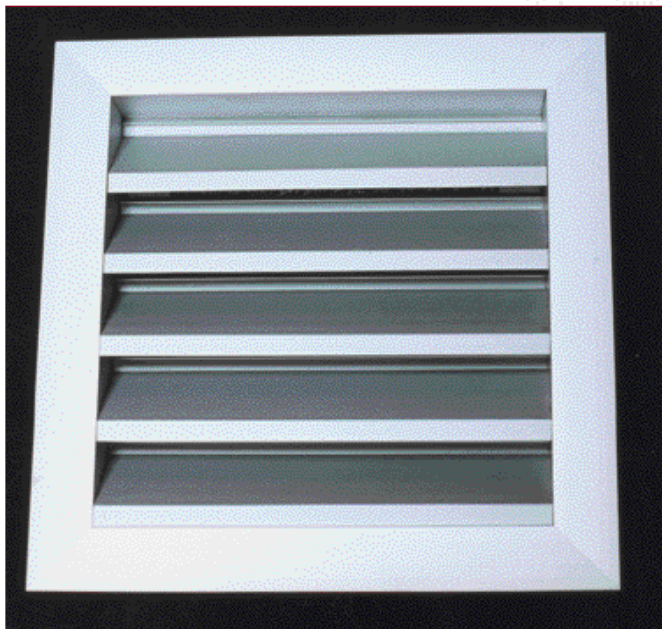
Model: AL

Construction:

- **Frame and blades:** High quality extruded aluminium profiles with 30 mm flange width as standard. 12, 16, 24 mm flange widths are option.
- **Blade pitch:** 40 mm.
- **Optional wire mesh:** 12 x 12 x 1.5 mm dia aluminium PVC coated wire mesh.
12 x 12 x 1 mm dia G.I wire mesh.

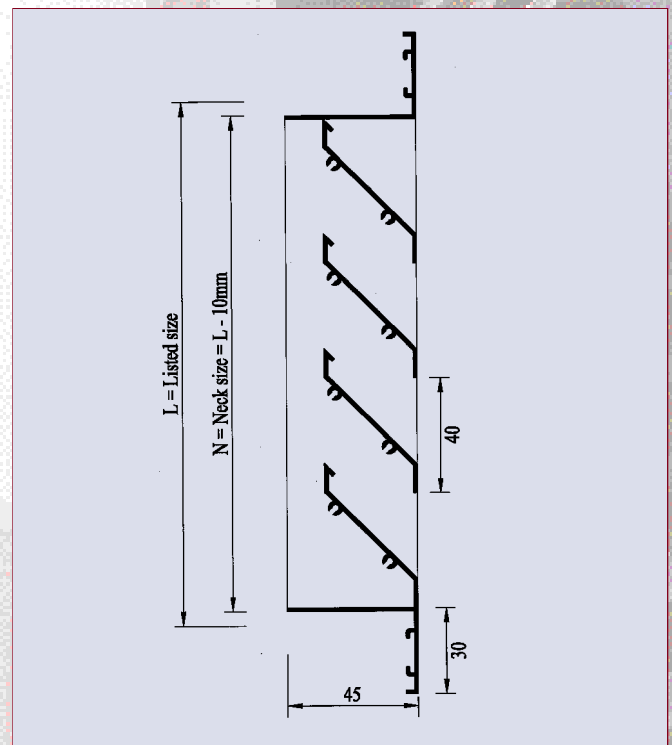
Description:

- Composed of frame and horizontal blade assembly, manufactured from high quality extruded aluminium profiles with the advantages of corrosion resistance and rigidity.
- Blades are fixed rigidly to the main frame by rivets.
- Blades are set at an angle of 45° to the horizontal with 40 mm spacing.
- Total structure is weather proofed and blades are inclined down wards to protect against rain water.
- Structure provides around 45% effective pressure area.



Standard finishes:

- Natural anodized aluminium finish.
- Powder coated colour finish.
- Flexibility of finish is available as option.





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Exhaust air louver with damper

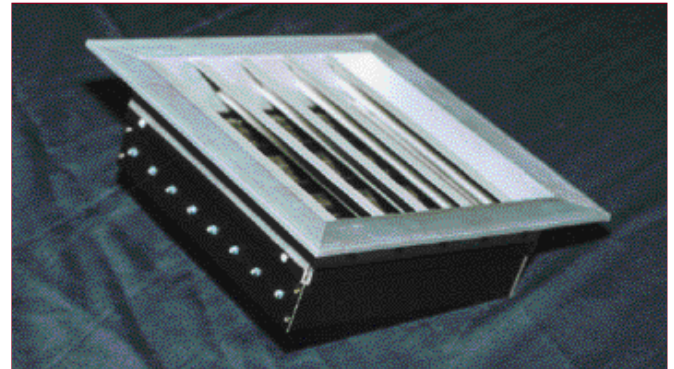
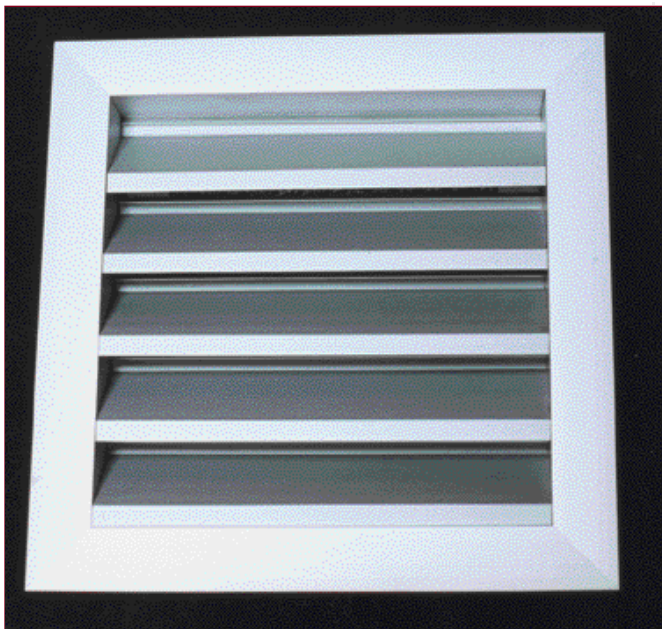
► Model: ALR

Construction:

- **Frame and blade:** High quality extruded aluminium profiles with 30 mm flange width as standard. 12, 16, 24 mm flange widths are option.
- **Blade pitch:** 40 mm.
- **Optional wire mesh:**
12 x 12 x 1.5 mm dia aluminium wire mesh.
12 x 12 x 1 mm dia G.I wire mesh.
- **Damper frame and blade:** High quality extruded aluminium profiles.

Description:

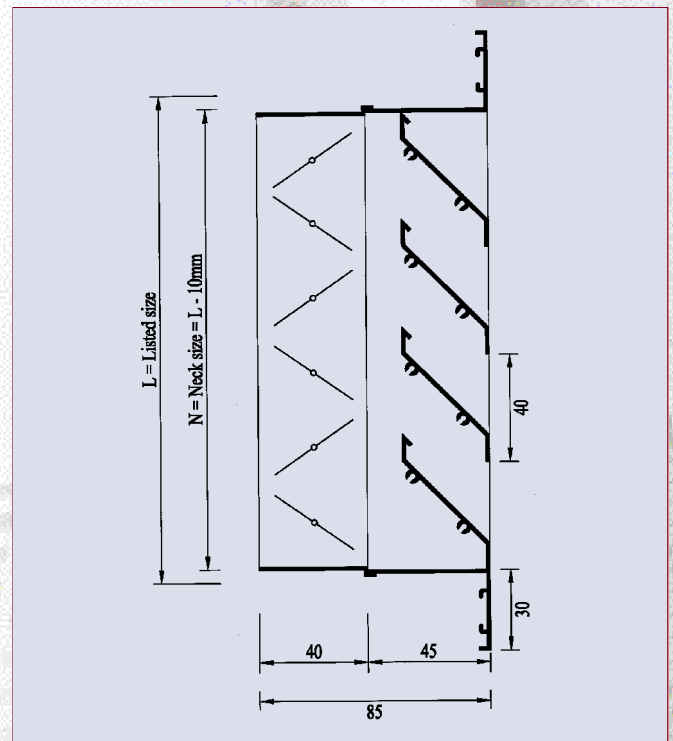
- Composed of frame and horizontal blade assembly, manufactured from high quality extruded aluminium profiles with the advantages of corrosion resistance and rigidity.
- Blades are fixed rigidly to the main frame by rivets.
- Blades are set at an angle of 45° to the horizontal with 40 mm spacing.
- Louver is fixed with an opposed blade damper to ensure positive control over the flow of fresh air stream. Damper blades can be operated manually by a projected lever.



- Total structure is weather proofed and blades are inclined down ward to protect against rain water.
- Structure provides around 45% effective pressure area.

Standard finishes:

- Natural anodized aluminium finish.
- Powder coated colour finish.
- Flexibility of finish is available as option.





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Fresh air louver

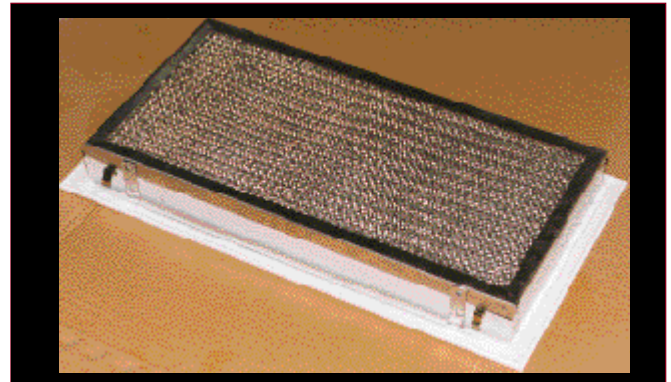
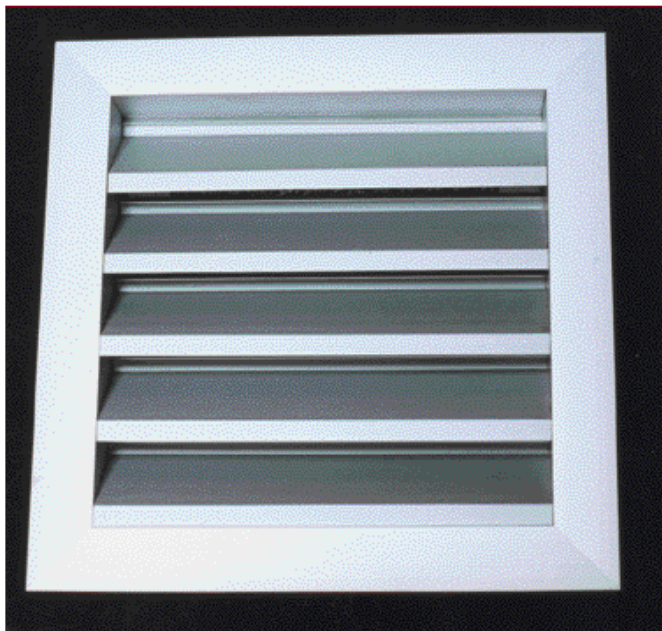
Model: AFL

Construction:

- **Frame and blade:** High quality extruded aluminium profiles with 30 mm flange width as standard. 12, 16, 24 mm flange widths are option.
- **Blade pitch:** 40 mm.
- **Optional wire mesh:**
12 x 12 x 1.5 mm dia aluminium PVC coated wire mesh.
12 x 12 x 1 mm dia G.I wire mesh.
- **Filter frame:** Aluminium sheet.
- **Filter media:** Expanded Aluminium media.

Description:

- Composed of frame and horizontal blade assembly, manufactured from high quality extruded aluminium profiles with the advantages of corrosion resistance and rigidity.
- Blades are set at an angle of 45° to the horizontal plane with 40 mm spacing. Fixed rigidly with the main frame by rivets.
- Louver is fixed with a removable washable extruded aluminium filter with aluminium mesh as the filter media.
- Filters are available at 12, 25, 40 and 50 mm

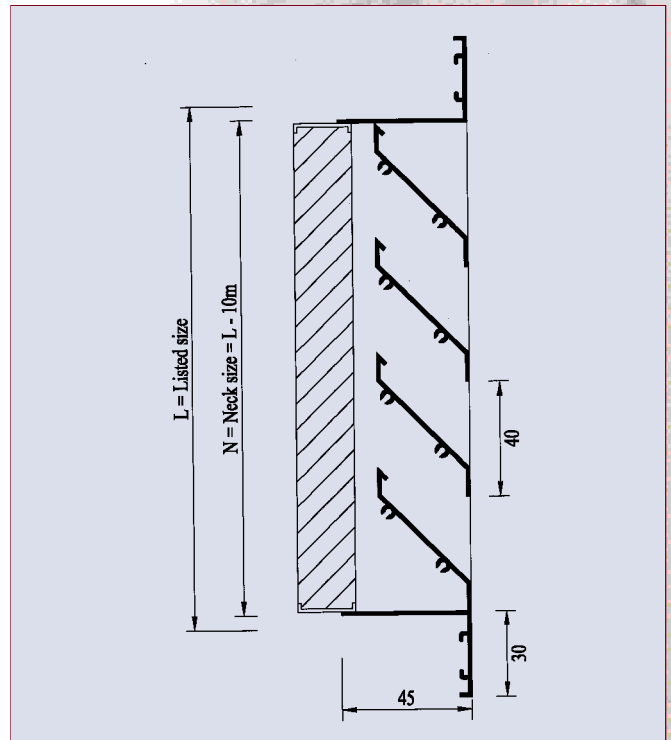


thickness as standard. Non standard sizes available as option.

- Total structure is weather proofed and blades are inclined down ward to protect against rain water.
- Structure provides around 45% effective pressure area.

Standard finishes:

- Natural anodized aluminium finish.
- Powder coated colour finish.
- Flexibility of finish is available as option.





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Fresh air louver with damper

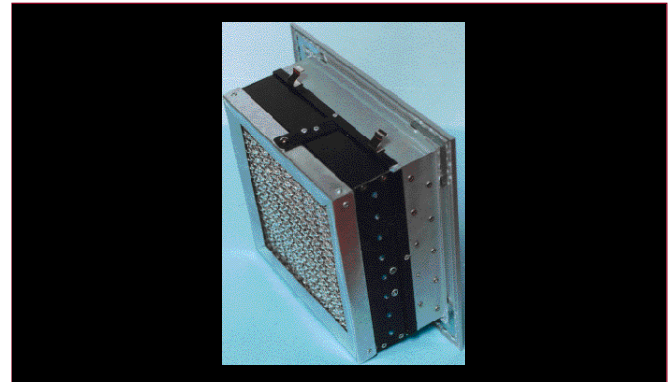
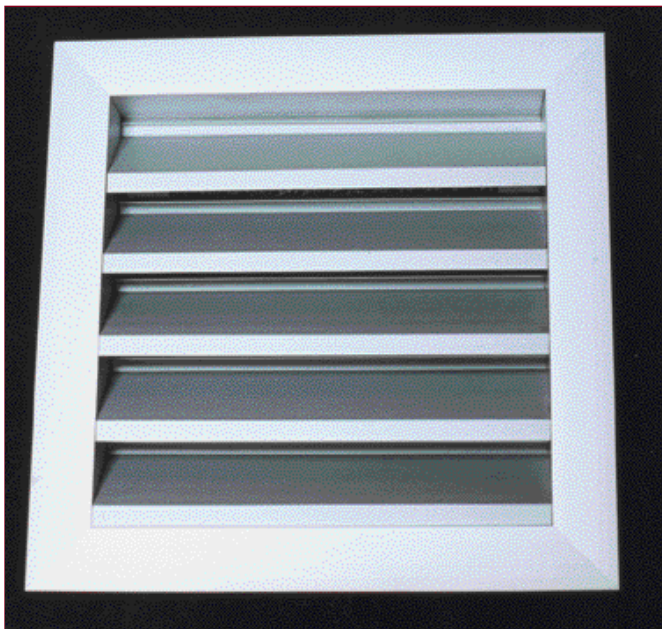
Model: AFLR

Construction:

- **Frame and blade:** High quality extruded aluminium profiles with 30 mm flange width as standard. 12, 16, 24 mm flange widths are option.
- **Blade pitch:** 40 mm.
- **Optional wire mesh:**
12 x 12 x 1.5 mm dia aluminium wire mesh.
12 x 12 x 1 mm dia G.I wire mesh.
- **Filter frame:** Aluminium sheet
- **Filter media:** Expanded Aluminium media.
- **Damper frame and blade:** High quality extruded aluminium profiles.

Description:

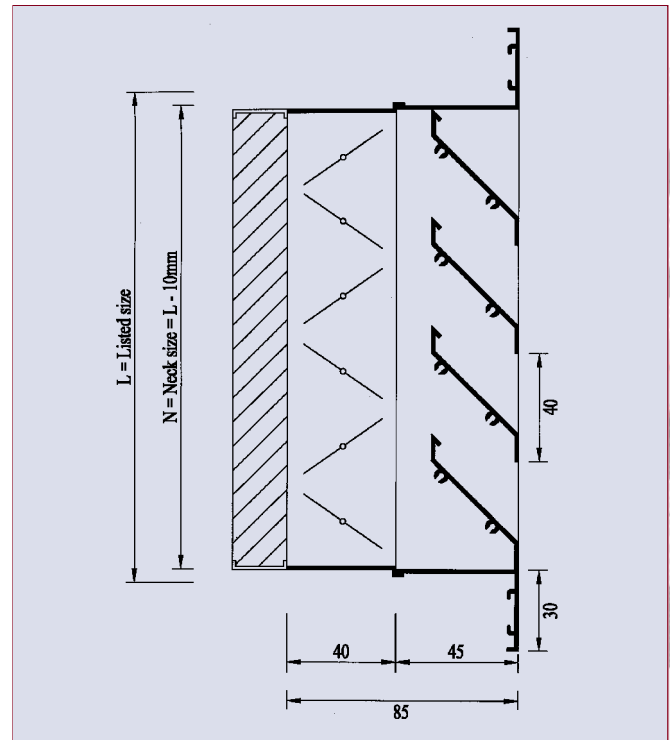
- Fresh air louvers are composed of frame and horizontal blade assembly, manufactured from high quality extruded aluminium profiles with the advantages of corrosion resistance and rigidity.
- Blades are fixed rigidly to the main frame by rivets.
- Blades are set at an angle of 45° to the horizontal with 40 mm spacing.
- Louver is fixed with an opposed blade damper to ensure positive control over the flow of fresh air stream.



- Damper blades can be operated manually by a projected lever.
- Louver is fixed with a removable washable extruded aluminium filter with aluminium mesh as the filter media.
- Structure provides around 45% effective pressure area.

Standard finishes:

- Natural anodized aluminium finish.
- Powder coated colour finish.
- Flexibility of finish is available as option.





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Heavy duty louver

Model: AHL

Construction:

- **Frame and blade:** High quality heavy gauge extruded aluminium profiles.
- **Blade pitch:** 100 mm.
- **Optional wire mesh:**
12 x 12 x 1.5 mm dia aluminium PVC coated wire mesh.
12 x 12 x 1 mm dia G.I wire mesh.

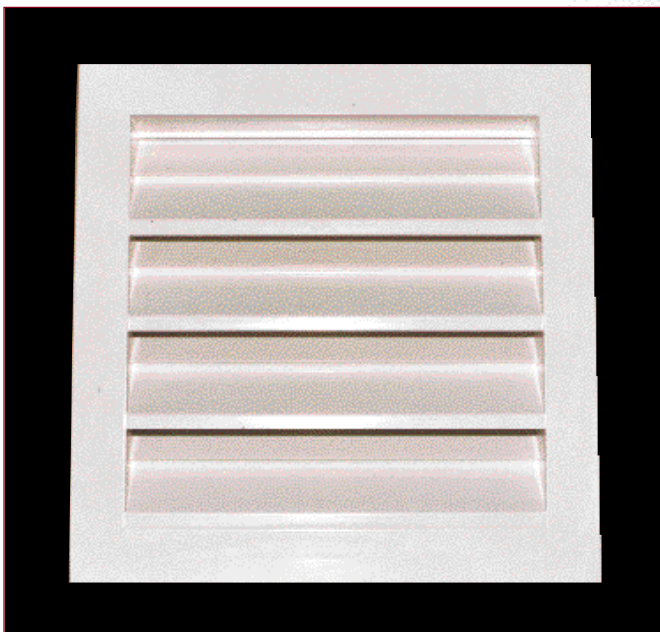
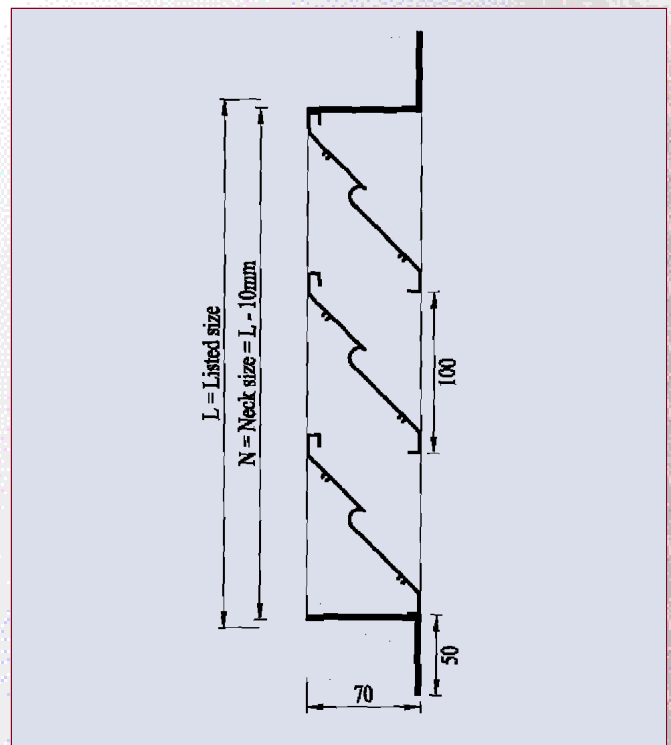
Description:

- Structure is constructed of high quality extruded aluminium profiles with the advantages corrosion resistance and rigidity.
- Blades are fixed rigidly to the main frame by rivets.
- Blades are set at an angle of 45° to the horizontal with 100 mm spacing.
- Total structure is weather and seepage proofed and blades are inclined down wards to protect against rain water.

- Heavy duty louver provides around 65% effective pressure area.
- These louvers are designed to provide weather protection for ventilation opening of buildings and electrical transformer rooms, etc.,

Standard finishes:

- Natural anodized aluminium finish.
- Powder coated colour finish.
- Flexibility of finish is available as option.



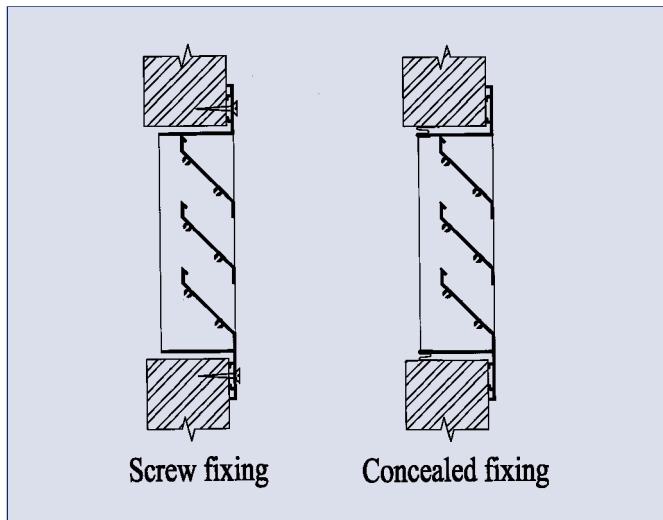


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Standard Sizes:

Width in mm	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
Height in mm	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000

Fixing details:



How to order:

Model	Size	Quantity	Finish
AL	Specify listed size width x height in mm x m	Specify in numbers	A = Aluminium anodized finish.
ALR			B = RAL - 9010
AFL			
AFLR			
AHL			C = Other colours.

Tick the required item.

Ordering example:

To select fresh air louver for a size of 800 x 600 mm. Quantity 40 numbers.
Finish: aluminium anodized finish.

Order as : AFL -800 x 600 – 40-A.



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Face velocity Vs Total pressure drop across the Louver

Table 14.1

Face velocity in m/sec	1.25	1.5	2.0	2.5	3.0	3.5	3.75	4.0	4.5
Exhaust in mm of water	0.248	0.331	0.564	0.814	1.151	1.595	1.825	2.143	3.290
Intake in mm of water	-0.35	-0.57	-0.83	-1.21	-1.69	-2.35	-2.69	-3.27	-3.85

Note: Intake pressure drop includes pressure drop across filters.
Readings are taken when the damper is in fully opened condition.

Effective pressure areas in m².

Model No: AL, ALR, AFL, AFLR.

Table 14.2

Height in mm	Width in mm													
	300	350	400	450	500	550	600	650	700	750	800	850	900	1000
300	0.038	0.049	0.055	0.063	0.069	0.077	0.084	0.091	0.098	0.105	0.111	0.119	0.125	0.139
350	0.049	0.057	0.065	0.073	0.082	0.089	0.097	0.106	0.1114	0.122	0.13	0.138	0.147	0.163
400	0.055	0.065	0.074	0.084	0.093	0.102	0.111	0.121	0.13	0.14	0.148	0.158	0.167	0.186
450	0.063	0.073	0.084	0.094	0.105	0.115	0.125	0.136	0.146	0.156	0.167	0.178	0.188	0.209
500	0.069	0.082	0.093	0.105	0.116	0.128	0.139	0.152	0.163	0.175	0.186	0.198	0.209	0.23
550	0.077	0.089	0.102	0.115	0.128	0.14	0.153	0.166	0.179	0.191	0.204	0.218	0.23	0.256
600	0.084	0.097	0.111	0.125	0.139	0.153	0.167	0.181	0.195	0.209	0.223	0.237	0.251	0.279
650	0.091	0.106	0.121	0.136	0.152	0.166	0.181	0.196	0.212	0.227	0.242	0.257	0.272	0.302
700	0.098	0.114	0.13	0.146	0.163	0.179	0.195	0.212	0.228	0.244	0.26	0.277	0.293	0.325
750	0.105	0.122	0.14	0.156	0.175	0.191	0.209	0.227	0.244	0.261	0.279	0.296	0.314	0.349
800	0.11	0.13	0.148	0.167	0.186	0.204	0.223	0.242	0.26	0.279	0.297	0.316	0.335	0.372
850	0.119	0.138	0.158	0.178	0.197	0.217	0.237	0.257	0.277	0.296	0.316	0.335	0.356	0.395
900	0.125	0.147	0.167	0.188	0.209	0.23	0.251	0.272	0.293	0.314	0.335	0.356	0.376	0.418
1000	0.139	0.163	0.186	0.21	0.23	0.256	0.279	0.302	0.325	0.349	0.372	0.395	0.418	0.464

Effective pressure areas for non standard sizes can be interpolated from the above data.