a perfect partner in performance...

Airwellcare

FIRE RATED LOUVERS

Airwellcare Products are Tested & Certified by various International Labs.

Our Product Ranges

Dampers

1 Fire Dampers
2 Fire / Smoke Dampers
3 Volume Control Dampers
4 Motorized Control Dampers
5 Pressure Relief Dampers /Non Return Dampers

Variable Air Volumes

6 Pressure Independent VAV
7 Constant Air Volume VAV
8 By Pass VAV

Louvers

9 Sand Trap Louvers
10 Acoustic Louvers
11 Stationery Louvers / Architectural Louvers
12 Storm Louvers
13 Weather Louvers

Sound Attenuators

14 Rectangular Sound Attenuators
15 Circular Sound Attenuators
16 Crosstalk Attenuators

Electric Duct Heaters

17 Flange & Slip 'n' Type
18 Modulating & On/Off Type

Air Outlets

19 Registers & Grilles
20 Diffusers (Linear Diffusers, Sq. & Rect. Ceiling Diffusers, Round Diffusers, Jetflow Diffusers
21 Swirl Diffusers & Disc Valves
22 Drum Louvers

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Introduction

In the event of a fire, Fire Rated Louvers & Louver Doors are become utmost importance, which offers resistance to the spread of fire thus, saves lives and buys time for everyone involved. Even vented openings for air and light can become passive fighters of fire. This is done through the use of Fire Resistant materials, cores and louvers. Fire Rated louvers are used for passive fire protection in Buildings and saves Pant Rooms & Equipments too.

All **Airwellcare** Fire Rated louvers & Louver Doors, not just the Louvers, which are built with safety and longevity in mind. All of the Airwellcare Fire Rated Louvres & Doors, when activated in the event of fire, fuse together to create a non-combustible barricade for 90 minutes to 180 Minutes, based on specification requirement. The Temperatures at 74 Degree Celsius and 120 degrees Celsius or higher will initiate the Fusible Link to close all the Louver Blades immediately, preventing the outbreak of Fire.

Airwellcare manufactures a variety of standard and specialized Fire Rated Louvers and Doors for many Applications in Residential, Commercial, Industrial, Onshore & Offshore. We are committed to high quality manufacturing processes that result in superior products delivered on time and to customer specifications.

Selection & Design

In the event of fire, it has a fusible link made of lead situated at rear side of the louver, which is temp. rated at 165°F (74°C) and allows the steel spring mechanism to snap all the louver blades to shut immediately, preventing penetration of fire and smoke.

Airwellcare Fire Rated Louvers & Doors are designed and manufactured in compliance with international standards, to achieve the optimum results, to cater to the requirements of HVAC Industry.

APPLICATIONS

- ***Residential Buildings***
- ***Commercial Buildings***
- ***Onshore Applications***
- ***Offshore Applications***
- ***Stadiums***
- ***Auditoriums***

Model : AHS FRL 600-G

Airwellcare Fire Rated Louvers and its robust Galvanized Steel & Stainless Steel construction features with remarkable design makes perfect performance in medium and high Velocity and pressure applications.

Construction Details

Casing

1.5mm thick (16 G.) galvanized steel / Stainless Steel hat shapped channel.

Louver Blades

1.5mm thick (16 G) galvanized steel (standard) / Stainless Steel (Optional)

Standard Width of Louver Blades are 150mm.

Louver Blade Orientation

Louver Blades are arranged with 45 Deg. Angle directions.

Blade Axle

The Blade Axle is made of 12x12mm Square Galvanized Steel. (Stainless Steel Blade Axle is optional).

Fusible Link

A Fusible link made of lead situated at the rear side of the Louver blade at 165°F (74° C).

Spring Adjustment

The blades are tensioned by a “spring clip” at the rear side of the Louver.

Mechanical Linkages

Mechanical Linkages are made of 2.8mm Thick. galvanized steel rigidly fastened with Louver blades concealed in frame, out of air stream.

Frames

Standard frame depth is 200mm.

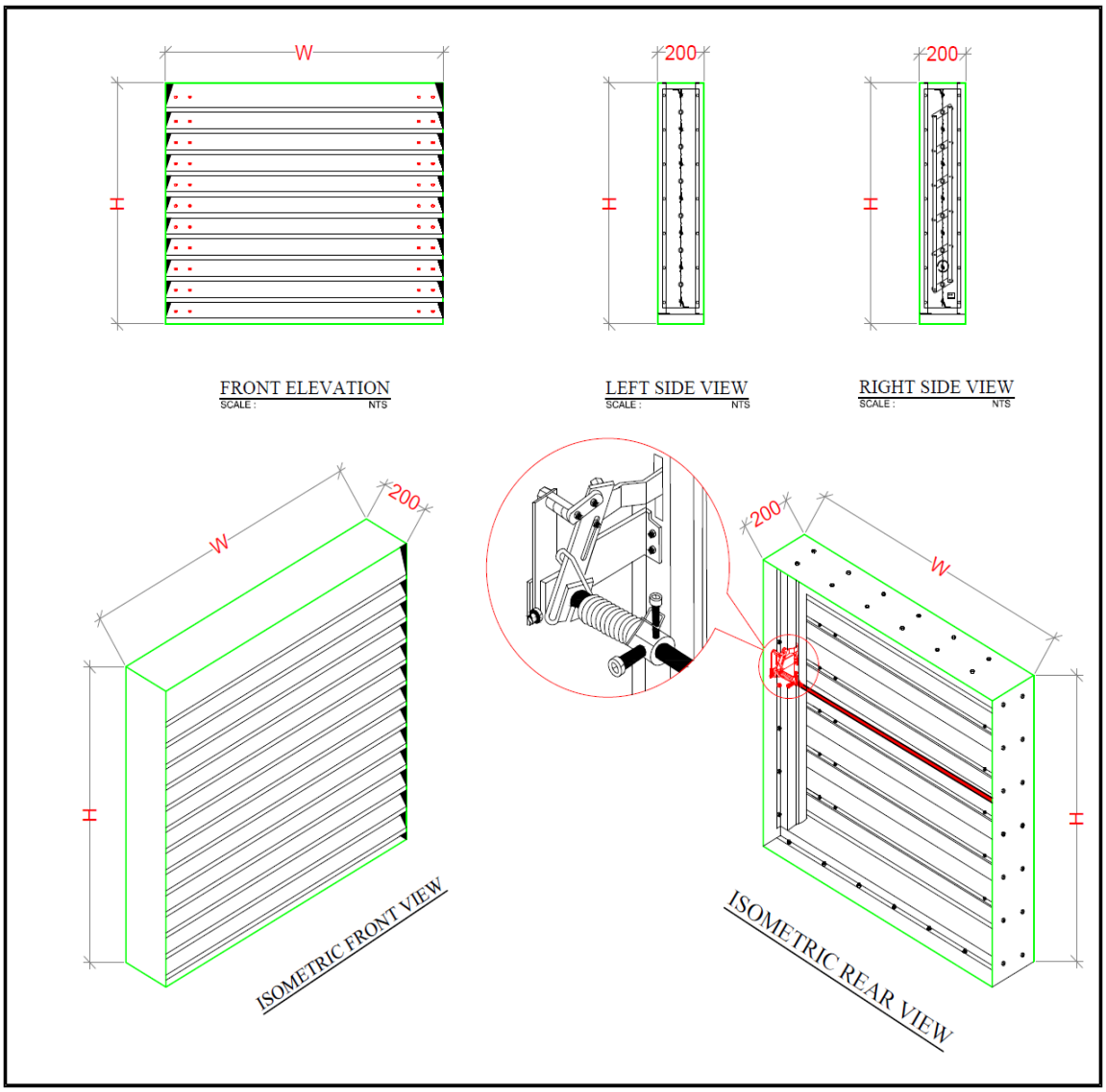
Finish & Colour

Standard Powder Coating finish as per RAL Colour Codes. The following custom based optional coatings / finish are also available on request.

- Super-Durable Polyester Powder Coating (SDF)
- Hyper-Durable Flurocarbon Polymer Coating (HDF)
- Polyvinylidene fluoride coating/KYNAR Coating (PVDF/KYNAR)

The above finishes complies to AAMA 2603 / 2604 / 2605 requirements with 15-20-years limited warranty against failure or excessive fading.

Construction & Dimensional Data

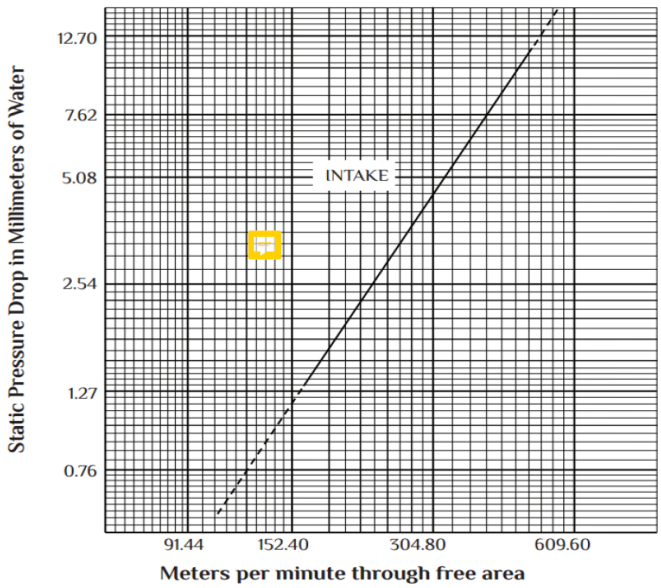


Minimum Single Module Size (Width x Height)	Maximum Single Module Size (Width x Height)	Maximum Multiple Module Size
300 x 300mm	900 x 900mm	Customers Option

Fire Rated Louvers larger than the maximum single module sizes are fabricated in multiple section assemblies. These assemblies consists of sections of equal size, which are coupled together with the help of full length Axle / Shaft.

Engineering Guidelines

Free Area Velocity & Pressure Drop



Free Area (In Sq.Ft)

Height (In Inches)

With (In Inches)	12	18	24	30	36	42	48	54	60	66	72	78	84
12	0.3	0.48	0.66	0.84	1.02	1.2	1.38	1.56	1.74	1.92	2.1	2.28	2.46
18	0.54	0.86	1.18	1.5	1.82	2.14	2.46	2.78	3.11	3.43	3.75	4.07	4.39
24	0.83	1.34	1.84	2.34	2.84	3.34	3.84	4.34	4.84	5.34	5.84	6.35	6.85
30	1.07	1.71	2.36	3.00	3.64	4.28	4.93	5.57	6.21	6.85	7.5	8.14	8.78
36	1.37	2.19	3.01	3.84	4.66	5.48	6.3	7.13	7.95	8.77	9.59	10.4	11.2
42	1.61	2.57	3.53	4.5	5.46	6.42	7.39	8.35	9.32	10.3	11.2	12.2	13.2
48	1.91	3.05	4.19	5.34	6.48	7.62	8.77	9.91	11.1	12.2	13.3	14.5	15.6
54	2.14	3.43	4.71	6.00	7.28	8.57	9.85	11.1	12.4	13.7	15	16.3	17.6
60	2.44	3.91	5.37	6.84	8.3	9.76	11.2	12.7	14.2	15.6	17.1	18.6	20.03
66	2.68	4.28	5.89	7.5	9.1	10.7	12.3	13.9	15.5	17.1	18.7	20.3	22.00

Fire Resistant Rating

Fire Rated Louvers installed in Walls, Floors or partitions are required by the applicable building code to have a fire resistance rating.

Type of Penetration	Minimum Louver Rating (Hours)
Less than 3 Hours Fire Resistance Rated Assemblies	1 ½ Hours
3 Hours or greater Fire Resistance Rated Assemblies	3 Hours

Material Storage, Operation and Maintenance

Material Storage

The Fire Rated Louvers required to be handled carefully during offloading as per the upright arrow marks given on the unit in the right position. Care should be taken in lifting the product in all 4 corners and placing them on a raised floor level. Store the product always in dry environment. After receiving the product, check for both obvious and hidden damages. If damage is found due to manufacturing defect / workmanship, record all necessary information with photographs and forward to Airwellcare.

Maintenance

Airwellcare Fire Rated Louvers are designed for least maintenance. However, it is recommended to have periodical inspection of damper blades for damage, wear and tear etc.

Once installed it is important to ensure the Louvers are not damaged as this may affect the airflow performance.

The Fire Rated Louvers may, over time begin to collect dust and grime due to their location and exposure to varying weather conditions. The Fire Rated Louvers should be cleaned to refresh their visual appearance at six monthly intervals.

Cleaning of the Fire Rated Louvers should be completed using a soft, clean cloth and soft wash gel cleaner. Surfaces should be thoroughly rinsed with fresh water after cleaning.

DO NOT use harsh cleaning fluids, strong solvents or abrasive cleaning materials, as these will damage the surface finish on the Louver. Once the louver surface finish is damaged, it cannot be repaired and in many cases may lead to deterioration of the base metal.

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