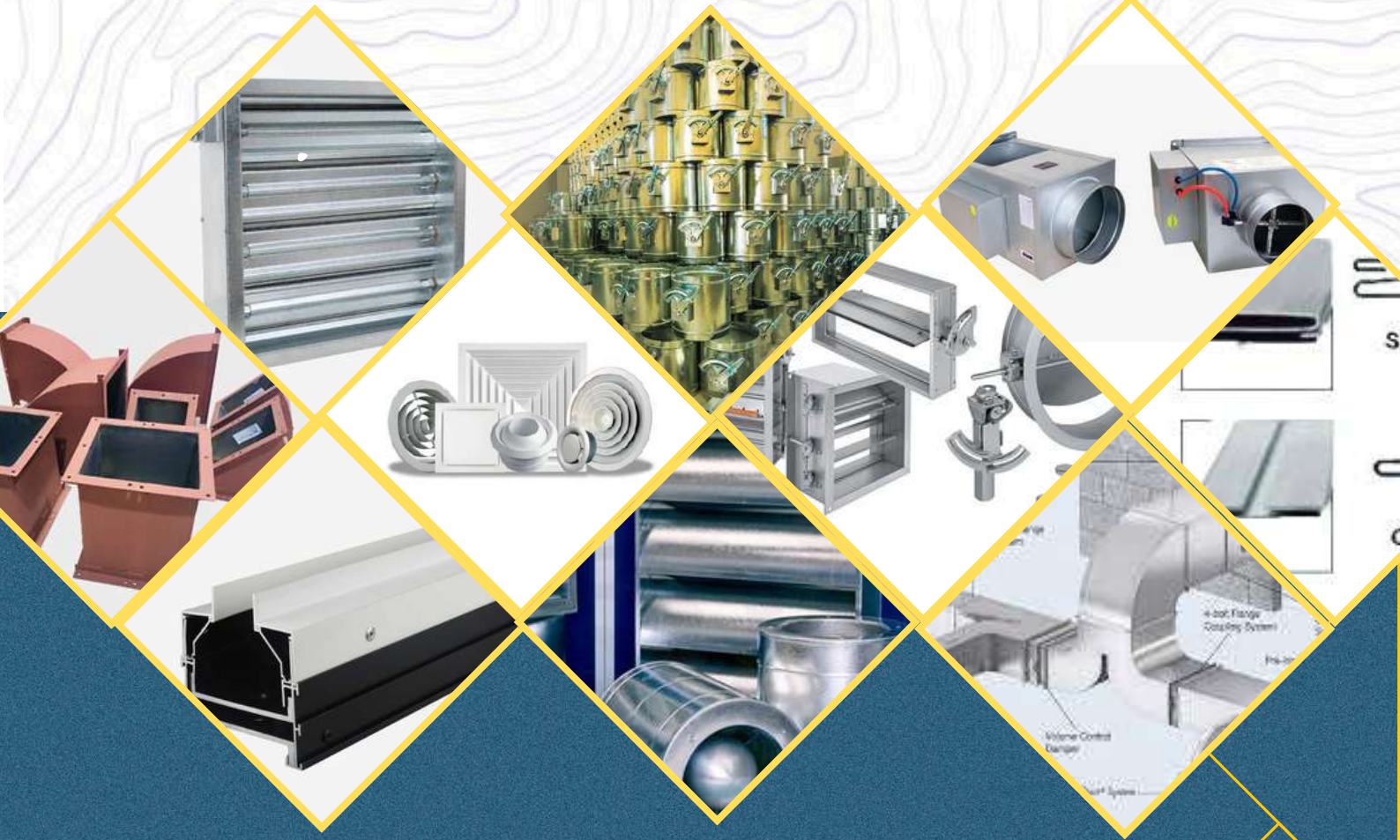
AIRFLOW AC

Airflow Airconditioning Industry LLC

Airflow AC Middle East FZE LLC



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AIRFLOW AC

Company Profile

We introduce ourselves, as one of the leading manufacturers of Central air-conditioning Ancillaries, Airflow air-conditioning Industry LLC is a leading Organization in the field of Air conditioning ancillaries. Established in 2011 it has Enviable track record of growth with products of international quality.

Airflow ac offers a Wide range of products suited to individual project requirements.
Airflow ac has a Team of Technically Skilled Professionals whose motto is to give the best Products. It adheres to European Standards of Manufacturing Quality Products, meeting the Stringent Standards of Air Conditioning industry. The Manufacturing Equipment is of European origin, which assures Precision of finished Products. Airflow ac produces as per International standards DW144, SMACNA AND ASHRAE.

Airflow ac has the Distinction of supplying Products to Major Projects and have Endorsements From many Satisfied Customers. Recognized in the industry for its Standards and Quality.
The raw material meets the standard of international recommendations. Every batch is tested before it is released to the customer.

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AIRFLOW AC

Round volume control damper

Material
Frame:-GI/SS/Alu (thickness 0.5 to 1.5mm) (As per Customer requirement)
Blade:- GI/SS/Alu (thickness 1to 1.5mm (As per Customer requirement)
Bush:--Nylon /Brass /SS Bush/bronze
Spindle: ---12mm Dia Round /12x12mm Square
Applications
Airflow AC- damper may be used to cut off central air conditioning (heating or cooling) to an unused room, or to regulate it for room-by-room temperature and climate control

Volume control damper (s&c)

Material
Frame:-GI/SS/Alu (thickness 0.5 to 1.5mm) (As per Customer requirement)
Blade:- GI/SS/Alu (thickness 1to 1.5mm (As per Customer requirement)
Bush:--Nylon /Brass /SS Bush/bronze
Spindle: ---12mm Dia Round /12x12mm Square
Applications
Airflow AC- damper may be used to cut off central air conditioning (heating or cooling) to an unused room, or to regulate it for room-by-room temperature and climate control

Volume control damper-SF

Material
Frame:- GI/SS/Alu/Ms (thickness 1 mm to 1.5mm) (As per Customer requirement)
Blade:- GI/SS/Alu /Ms (thickness 1 to 1.5mm (As per Customer requirement)
Bush:--Nylon /Brass /SS Bush/bronze
Spindle: ---12mm Dia Round /12x12mm Square
Applications
Airflow AC- damper may be used to cut off central air conditioning (heating or cooling) to an unused room, or to regulate it for room-by-room temperature and climate control

Volume control damper-Box type

Material
Frame:- GI/SS/Alu/Ms (thickness 1 mm to 1.5mm) (As per Customer requirement)
Blade:-- GI/SS/Alu /Ms (thickness 1 to 1.5mm (As per Customer requirement)
Bush:--Nylon /Brass /SS Bush/bronze
Spindle: ---12mm Dia Round /12x12mm Square
Applications
Airflow AC- damper may be used to cut off central air conditioning (heating or cooling) to an unused room, or to regulate it for room-by-room temperature and climate control

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AIRFLOW AC

Phenolic VCD

PAL/Easy Sandwich panel frame with aluminum blade
And hand- operated quadrant
Application:- Generally used for majority applications In pre-insulated ducts
Construction:-
Frame: -20mm thick polyurethane material with 2-sides Aluminum foil facing.
Frame Size:- 200mm depth with flanges foreside-fixing.
Blades:- Double skinned high quality extruded Aluminum aero foil profiles.
Drive Shaft:- Electro plated square rod of size 12mm x 12mm.
Bushing:- Self-lubricating nylon bushings.
Blade linkage:- Nylon Gear.
Blade stopper:- G.I angle of thickness 0.7mm.
Handle: -Galvanized Steel locking hand quadrant.

Access Door

Material
Frame:-GI/SS/Alu /MS (As per Customer requirement thickness up to 2mm)
Door:- GI/SS/Alu /Ms(As per Customer requirement thick up to 2mm)
22G galvanized steel flanged frame for strength. Double skinned 24 G galvanized door panel. 1 inch thick insulation.
Notched knock over tabs and camlock fasteners. Positive seal synthetic gaskets. Safety retaining chain on removable door as an option item. Continuous piano type hinge standard on model AD-HCL Progressive action, zinc plated camlocks for secure closure 1 inch (25 mm) thick insulation for reduced noise and heat transfer (2 inch thick insulation option is also available).Synthetic gaskets for positive seal. Sizes and models to suit most applications. Available hinges and safety chains (option).Meets SMACNA construction specification

Applications
Airflow AC- range of duct access doors has been designed to allow easy and convenient access to the equipment's within HVAC ductwork, while providing a secure, positive seal when closed.

GI RINGS

Construction
26/24/22 gauge Sheet (thickness As per Customer requirement)
Length 150/120/100 mm
Application
For flexible duct connectors, plenum connectors

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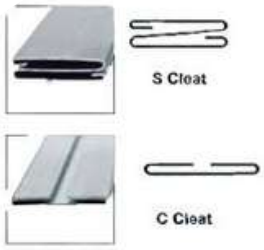
S cleats & C cleats

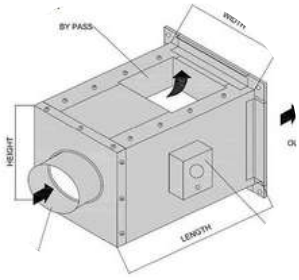
Slip and Drive Cleats system is generally used for low-end, less-critical applications. Traditionally, only the Drive cleats ("C") which are positioning cleats were used for all four sides. This was giving a poor joint. The Slip cleats ("S" / "Standing S") on the alternate opposite sides provide the moderate rigidity to the joint. While installing, Drive cleats are always fitted on the shorter sides and Slip cleats on the longer sides.



BYPASS VAV

Construction:

Casing: High quality galvanized steel sheet of 0.9 mm thickness
By-Pass balancing damper: 0.9mm field adjustable balancing damper on the bypass outlet. Actuator: 0-10 Modulating actuator.
Acoustic Media: Interior surface of unit casing is acoustically and thermally lined with ½ inch, 32 kg/m³ density glass fiber with high density facing. UL listed and met NFPA 90A and UL 181.Transformer: Step-down transformer, 240-24 Thermostat: 0-10V, Analog or Digital Capacities range from 50– 3200 CFM in 8 sizes, Casing construction meets SMACNA standards and provides excellent strength and rigidity. Thoroughly sealed to prevent air leakage



Applications:

Airflow AC- Variable Air Volume (VAV) Control units are ideal for low and medium pressure applications. These units are suitable for both cooling and heating systems. The temperature can be preset on the electronic analogue/digital thermostat, which senses the room temperature and controls the VAV Unit. The required quantity of air to each zone is pumped into the serving area based on the load requirement and the balance air bypassed through the bypass section of the VAV unit above false ceiling or to return air ducts.

PLENUM BOX

Construction

26/24/22-gauge Sheet (thickness as per Customer requirement)

Application

For Outlet Fixing

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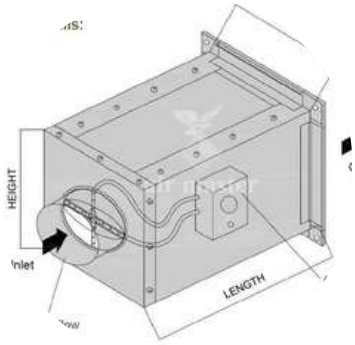
Pressure Independent VAV

VAV System works:
The air passes into each zone from the ductwork through individual VAV boxes. A temperature sensor located in each zone is connected to its VAV box and opens or closes the VAV box to maintain the defined temperature set-point. As the zone becomes satisfied, the VAV box modulates to a closed position. As the Zone's requirements become satisfied, the pressure in the ductwork begins to rise as the openings in the ductwork close. Variable Air Volume systems are used to control both the ventilation and temperature to satisfy the requirements of a building.

VAV Applications:
Residential & Commercial Buildings, Airports, Office space, Hospitals
Hotels, Retail stores, shopping malls, educational facilities, Indoor Games, Stadiums, Theaters

Construction:
Casing Casings are made of high-quality Galvanized Sheet Steel of 1.0mm Thick. Internal Insulation VAV Boxes are Internally Insulated with ½ Inch or 1 Inch Acoustic Liner (in compliance with project requirement). Metal encapsulated edge prevents cut fibers of the insulating plate falling off and avoids erosion in the air stream.VAV Damper Shafts VAV Damper Shafts are made of 12mm Dia Round Solid Composite Steel shafts, which prevents condensation and breakage. Damper Gaskets Blade edges are sealed with Rubber Gaskets, preventing air leakage and for an airtight operation with low leakage characteristics.VAV Sound Attenuator (optional only) VAVs are provided with Sound Attenuator as an optional (upon request), where excess noise to be decreased or controlled Maximum. Flow Grid Differential Flow Grids are located inside the VAV inlet with pre-calibrated holes with die cast aluminum junction, which measures air volume accurately. Electric Duct Heater (Optional only) Terminal shall include an integral electric heater, where indicated on the plans. The heater Control Box shall be constructed of not less than 20 gauge galvanized steel. Heater shall have a hinged access panel for entry to the controls.



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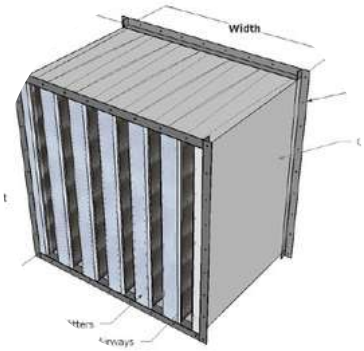
AIRFLOW AC

Sound Attenuator



Airflow AC-- offers the design and engineering assistance to integrate our line of duct silencers, sound attenuators into a system solution. As a result, you may choose from a selection of standard or custom engineered duct silencers that will satisfy the requirements of each application.

Prime candidates for noise control measures are openings into and out of noisy environments. This includes the ventilation of buildings, enclosures, and equipment rooms. Integration of noise control measures such as silencers and louvers, into the system design requires careful consideration of space constraints, fan selection and aerodynamic pressure losses

Products:

Rectangular Duct Silencers, Circular Duct Silencers, Elbow Duct Silencers, Crosstalk and Vent Shaft Duct Silencers, Custom Duct Silencers

Case Studies:

Generator Room Ventilation Silencers, Induced-Draft Cooling Tower Attenuation, Generator Set and Cogeneration Unit - Sound Control Rooftop, Mechanical Equipment Noise Control, Backup Generator Sound Enclosure

Applications:

Fan Inlet and Discharge, Air Handling Units, Cooling Towers Radiators, HVAC Duct Systems for Commercial, Institutional and Industrial Buildings

Construction:

Outer casings of silencers shall be made of not less than 22 gauge; lock former quality galvanized steel, Type G90 [or 316/304 stainless steel, aluminum].

Interior baffles and bullet for silencers shall be made of not less than 22 gauge and properly stiffened to ensure structural integrity; lock form quality, perforated steel, galvanized steel, Type G90 [or 316/304 stainless steel, aluminum].

Acoustically absorptive fill except for reactive (pack less) silencers shall be inorganic glass fiber of a proper density to obtain the specified acoustic performance and be packed under not less than 5% compression to eliminate voids due to vibration and settling.

Material shall be inert, vermin and moisture proof and impart no odor to the airstream.

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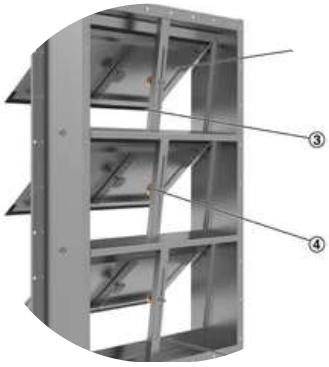
Pressure Relief Damper



Pressure relief dampers for gas fire extinguishing systems and transformer substations, Air leakage with back pressure to EN 1751, class 4 Maximum differential pressure: 5000 Pa, Differential pressure can be adjusted from 50 – 1000 Pa (B > 600 mm: 600 Pa max.),Blades made of aluminum/GI/SS, casing made of galvanized steel /SS Blades open when the maximum differential pressure is exceeded and close automatically when the pressure drops Blade locking with permanent magnet Robust, maintenance-free construction Available in standard sizes and many intermediate sizes Operating temperature 0 to 80 °C
Optional equipment and accessories
Installation sub frame, Powder coating (RAL or DB) Stainless steel construction with stainless steel casing; blades made of aluminum

Application

Pressure relief dampers of PRD for the protection of internal spaces from differential pressures in excess of set maximum levels When the set maximum differential pressure is exceeded, the blades automatically open to relieve the excess pressure Pressure peaks will be reliably controlled Differential pressure can be adjusted from 50 – 1000 Pa (B > 600 mm: 600 Pa max.)
Special characteristics
Robust, maintenance-free construction Maximum differential pressure: 5000 Pa
Air leakage with back pressure, in closing direction, to EN 1751, class 4 Damper for negative or positive pressure (air extract or discharge) Operating temperature 0 to 80 °C Maintenance-free DU bearings with Teflon coating, bearing shafts made of stainless steel Each blade is locked with a factory set permanent magnet Adjustable differential pressure for blade opening: 50 – 1000 Pa, depending on width

Functional description

Pressure-relief dampers open and close automatically. The blades are kept closed by magnets. If the differential pressure exceeds the set maximum value, the magnetic force is overcome, and the blades open. The airflow by which the excess pressure has been caused can now flow through the damper. The pressure peak is immediately and reliably controlled. The blade opening angle depends on the differential pressure and the volume flow rate.

When the differential pressure drops below approx. 30 Pa, the blades close again.

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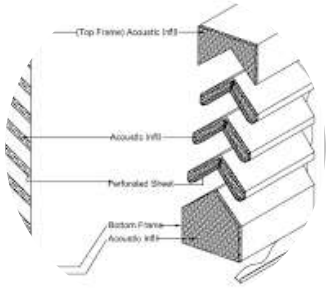
Acoustic Louver

Airflow ac- Fixed Blade Acoustic Louvers are economical, effective and attractive. They are designed for maximum sound reduction when space is limited. They are aesthetically pleasing and available in various material types intended to be used where space is limited.

Applications:

Building Ventilation
Generator Room Intake and Discharge Vents
Barrier Wall Systems - Cross Ventilation
Acoustical Enclosure Ventilation
Pump Room Ventilation



Accessories:

Flanges, Bird Screen, Powder-Coat Finish, Structural Design Services for Large Louver Banks and Walls

Acoustical Louvers are used as part of the intake/exhaust air system of buildings, structures, or equipment to help reduce noise produced by the system equipment. They have a relatively large surface area which compensates for their lack of depth. Models are available in varying depths, percent open area and blade configurations yielding various pressure loss and noise reduction performance.

Fire Damper

Construction:

Frame: High quality galvanized Iron Sheet of 1.6mm thickness.
Blades: Interlocking type blades roll formed from 1mm thick galvanized steel. Blade Ramp: Formed from 1.6mm thick galvanized steel with a spring holder. Springs: 2nos. constant force stainless steel springs.
Fusible Links: UL listed fusible links which has fire rating of 165° F / 212° F

Applications

Fire damper is a device installed in an air distribution system or an air transfer opening designed to close automatically upon detection of heat interrupting airflow and thereby restricting the passage of fire in the process. Fire dampers are installed in fire rated walls/barriers/partitions (sleeve required) where the HVAC ductwork penetrates ensuring that their integrity is maintained. The location and installation procedure of fire dampers should be in accordance with the widely accepted and recommended standard, NFPA 90A – Standard for the installation of Air-Conditioning.

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AIRFLOW AC

GI Duct

Galvanized Iron (GI) Ducts are manufactured at our State-of-the-art factory as per
Customer requirements. All the accessories such as fittings, attachments, Components, and other goods are manufactured from the finest grade of material and cutting edge technology. Our quality controllers check each and every detail on well-defined quality parameters. Competitively priced, if need to be, the offered
Range of ducting is also facilitated with sound proofing and high degree insulation.
Features:
• Hot-dipped galvanized steel sheets of lock-forming quality are used for the
Manufacturing of standard ducts
• In order to re-in force, all straight ducts have beading all along at a distance of
300 mm between them

Mild Steel Duct (MS)

Mild Steel (MS) Ducts
Airflow AC black steel ducts (MS Ducts) are fabricated from hot rolled or cold rolled Black steel sheets with fully welded construction to achieve leak proofing. MS ducting is made from the high quality mild steel which contains 0.16–0.29% carbon. This composition ensures that the material is neither ductile nor brittle.

Applications:
MS ducts are mainly used for the kitchen exhaust because of its inherently fire-resistant characteristics.
The fire resistance characteristics of MS ducts can be further enhanced by Fire Rated Spray Coat or painted with multiple coats of Red Oxide along with Rock wool insulation conforming to NFPA 96 Standards.

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Stainless Steel Duct (SS)

Stainless Steel (SS) Ducts
Airflow AC SS ducts are fabricated out from prime SS sheets of 316 / 304 grades with fully welded longitudinal and transverse joints. Airflow AC is experienced in manufacturing round as well as rectangular stainless steel ducts. Dedicated team of engineers and technicians are involved in manufacturing process. Stainless steel Ducts are manufactured as per NFPA, BS and ASHRE standards. Stainless Steel ducts are mainly used for Kitchen exhaust in exposed to view areas
and in the areas where Hygiene is the top priority and in highly corrosive environments. Stainless Steel ducts have higher strength, rigidity and best finish in comparison with GI ducts. Its appearance though is much sleeker than the one in an aluminum duct it stands way out for its corrosion resistant characteristic. For SS Ducts stainless steel sheets are available in two qualities i.e. Grade 316 &Grade 304.

Aluminum Duct(AL)

Aluminum (AL) Ducts
Airflowac is experienced in manufacturing aluminum round as well as rectangular ducts.
Material is as specified in ASTM B209, BS. EN485, BS. EN515, and BS. EN573 depending on the exposed environment.
Airflow AC's Aluminum ducts are fabricated from aluminum sheets of AA1100 / Equal grade of sheets with Hemmed 'S' & Drive 'C' cleats or FL flanged type transverse joints. Plain type (Reflector finish)
Applications
Aluminum Ducts are also widely used as air ducts in areas such as Swimming pool, clean rooms of sensitive/industrial films etc.

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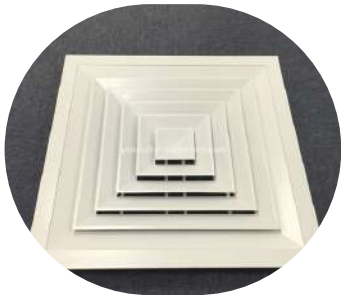
Square Diffusers



Construction:
Frame: High quality extruded aluminum profile with 33 mm flange width.
Core: 0 temper Aluminum Sheet 1.1mm
Damper frame and blades: High quality extruded aluminum profile with natural aluminum finish. Black matt finish as option

Round Diffusers

Construction:
Frame and inner cones: High quality aluminum sheet as standard. Steel construction as option.
Damper frame and blades: Steel sheet with black matt finish

Disc Valve

Construction:
Frame and disc: Steel sheet construction.
Mounting rings: Galvanized sheet steel.

Round NRD

Construction:
Backdraft dampers also refer to as non return dampers have a split flap closure and allow the airflow to pass in one direction only. The aluminum closure flaps are pressed against a foam seal when closed to reduce the operating noise in the ductwork.
The split flap closure is held closed with a spring gear, which makes it also possible to use the backdraft damper in vertical installations.

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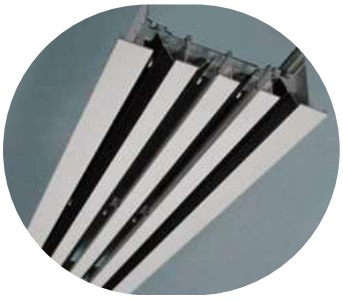
AIRFLOW AC

Linear Slot Diffuser



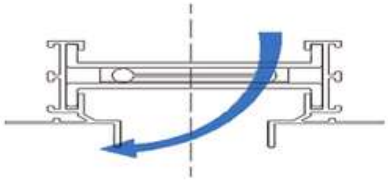
Construction:
Frame and blades: High quality extruded aluminum profiles.
Damper: Hit and miss damper
Slot Width: 20 mm as standard. 16 mm and 25 mm available as option
Number of slots: 1, 2,3,4,5,6,7,8
Length: up to 5.8 m in single piece

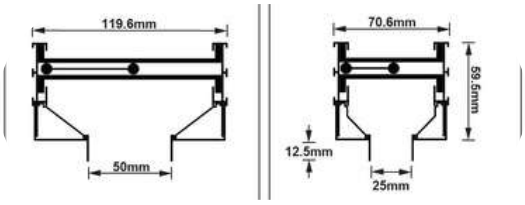
Hidden Slot Diffusers

The Hidden linear slot diffuser is designed for ceiling application where the frame is not wanted to be visible. They can be used for supply or extract air together with the accessories required for various demands.
After installation, the frame part remains in the ceiling, and a black thin slit image is obtained.

Flow bar Diffuser

Flow bar is an architecturally designed high-capacity linear slot diffuser. It is designed to combine a high air handling capacity with maximum flexibility and is suitable for either celling or sidewall applications.





Construction:
Frame: High quality extruded aluminum profile.
Deflector: Flat Aluminum profile with rounded edges.
U-Channel: Spring loaded Aluminum channels to hold deflector.

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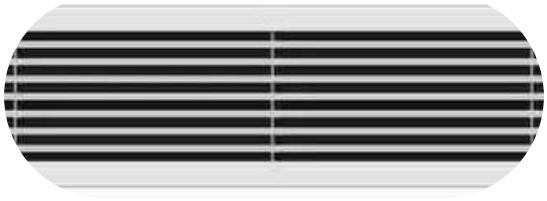
AIRFLOW AC

Linear Bar Grills



Construction:

Frame: High quality extruded aluminum profile with 30 mm flange width as standard. 12, 20, 24 mm flange widths are optional

Face bars: Aluminum profiles of 0°, 15°-1 way throw and 15°-2-way throw

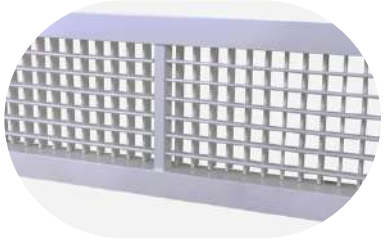
Bar spacing: 12 mm as standard. 6 mm as option.

Grille width: 50 mm to 300 mm with increments of 50 mm.

Applications

High capacity as well as its pleasant aesthetic appearance Linear Bar Grille & Registers are commonly used along sides of relatively large spaces with double void areas such as Domes, Open Lobbies, Malls, Atriums and Buildings Entrances, where both aesthetics and high capacity air volumes are required

Double Difflection Grill



Construction:

Frame: High quality extruded aluminum profile with 30 mm flange width

Blade: Aero foil blades from aluminum profiles.

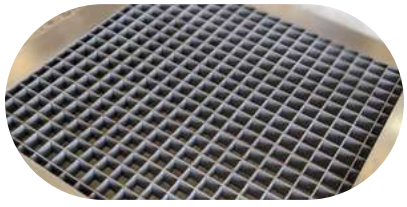
Blade spacing: 20 mm as standard.

Damper frame and blades: High quality extruded aluminum profiles with natural aluminum finish. Black matt finish as option.

Applications

Double deflection Grilles are generally used in walls for supply / return HVAC applications

Egg Crate Grills



Construction:

Frame: Extruded Aluminum of 30mm width. 12, 16, 24 mm widths optional

Egg Crate Core: 12.5 mm x 12.5 mm x 12.5 mm Aluminum grid

Applications

Egg crate grilles are usually fixed on the ceiling for exhaust applications

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Sand Trap Louvers

Construction

The frame and blades are of high quality extruded aluminum profiled construction with the advantages of corrosion resistance and rigidity. Composed two sets of inverted U-channels mounted vertically on two opposite rows. Drain holes of diameter 20 mm are provided in two rows at the bottom of the louver for emptying filtered sand and dust.

Can be manufactured from G.I or SS as option. Designed to separate sand and dust from the air stream.

Applications:

Generally used for ventilation applications and at inlet duct of air handling unit. Bird screen to protect from the ingress of large objects

Exhaust Air louvers

Construction:

Frame and blades: High quality extruded aluminum profile of 1.2mm thickness

Blade pitch: 40 mm standard

Flange width: 30mm standard

Exhaust air louver are mainly used in the ventilation system of a building

Round Duct

Round Duct manufactured with a lock seam. All seams are constructed with a spot weld, or stitch weld.

FABRICATION STANDARDS

Galvanized steel construction. Fabricated as per SMACNA standards. Thickness: from 14 GI gauge to 26 GI gauge, as per customer's request.

OPTIONS

Can be made in Black Steel, Stainless Steel or Aluminum. Available with flanges or flat rings. Available with a snaplock. Flame retardant. Internal lining. External insulation (Double Wall).

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