



KRAFT AIRCON ENGINEERS

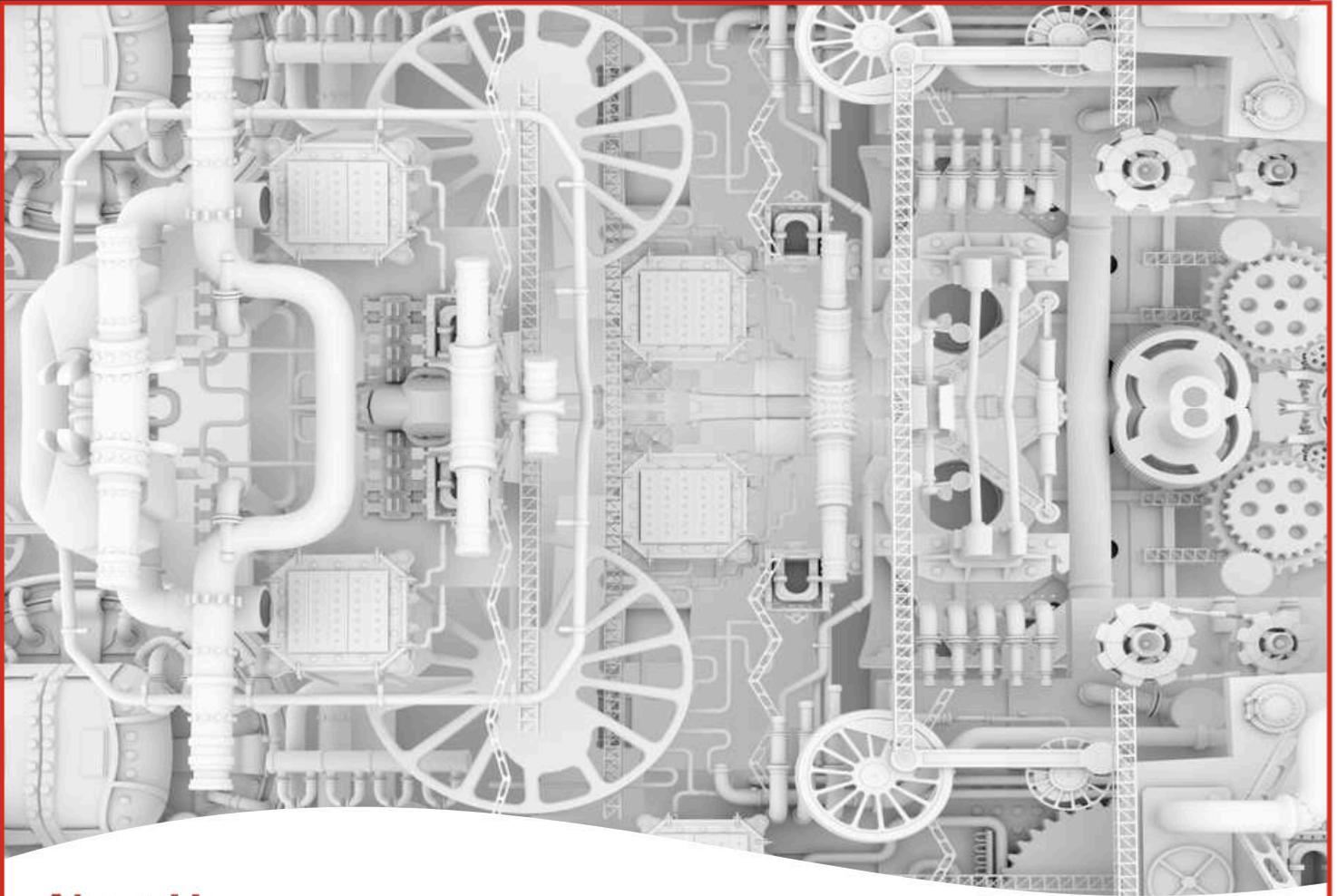
A Complete HVAC Transformation

Our Commitment to quality, Integrity, and Customer Satisfaction is evident in every aspect of our operations.



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About Us

Pioneering some of the most comprehensive products in Air management solutions our engineers through their vast experience and accredited training perfectly combine design and efficiency, constantly working towards reducing energy consumption whilst maximizing system performances. Creating high-performance technology that meets world-class safety standards.

Our dedicated teams of experts share the common practice of excellence at every convention. With a passion for perfection we regard quality as the corner stone of every development; testing and improving upon different aspects of every device and system to meet the most uncompromising standards.

Working closely in collaboration with architects, consultants, contractors and builders is one of the key assets we cherish from the core of our hearts along with the ideal of giving the best and always raising the bar of standards higher propelling us forward to achieve.

With rugged and clever designs the company continues to set new standards in AIR performance, safety and ventilation reliability, distinguishing itself with the cutting-edge features of its product line. Accelerated and standardized by some of the world's foremost standard organizations, providing the safest Air solution equipments for commercial, residential and industrial applications right from the cellar to the roof.

And as we continue to grow we continue to aggrandize with eyes wide open with the anticipation for the future

Leading the course in the Manufacturing, Exporting and Importing of Air Terminal Products, Air Distribution Products, Smoke/Fire Dampers, Axial Flow Fans, Centrifugal Fans, Flexible Duct Connectors, Jet Nozzles and Louvers.



Engineering Guide

Air Distribution

The transportation of a specified air flow to or from the treated space by means of ductwork.

Air Diffusion

Distribution of the air in a space, called the treated space, by means of devices, called air terminal devices, in a manner so as to meet certain specified conditions, such as air change rate, pressure, cleanliness, temperature, humidity, air velocity and noise level.

Terminal Velocity

The point at which the discharged air from an outlet decreases to a given velocity usually 0.25 m/s or 50fpm.

Throw

The distance, measured in meters or in feet that the airstream travels from the outlet to the point of terminal velocity.

Drop

The vertical distance between the centre of an outlet and the bottom of the airstream at the end of horizontal throw.

Envelope

The geometrical surface of the points of an air jet corresponding to terminal velocity.

Spread

The maximum total width of the air pattern in the envelope.

Air Flow

The Air flow is the rate of quantity of Air passing through the Air outlet to the room so as to achieve the desired design conditions such as temperature, Noise level etc.

Static Pressure

Pressure inside the duct which is necessary to overcome friction resistance measured in Pa or IN-WG.

Total Pressure

Sum of at the static & velocity pressure.

Induction

Process by which the primary air sets into motion an air volume, called secondary air, in the room.

Coanda Effect

Also called ceiling or wall effect. Tendency of an air stream to follow a wall plane when the stream is in contact with the wall. This effect increases throw and reduces drop.

Noise Levels

Decibel is the unit used to measure sound. It is logarithmic ratio of two sound pressure levels (SPL Lp) (or) sound power levels (SWL Lw) where one is a reference level, The most commonly used criteria are Noise criteria curves (N.C. level), Noise rating curves (N.R. levels) and dB (A).

Air Terminal Devices

A device located in an opening provided at the boundaries of the treated space in order to improve a predetermined air movement within the space.

Supply

The air flow entering the treated space.

Exhaust

The airflow leaving the treated space by means of following methods. Extraction, Relief, Recirculation & Transfer.

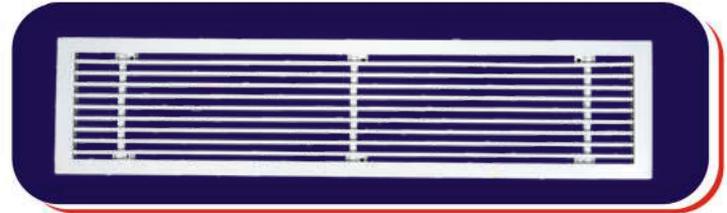
Register

-A grille with a damper.



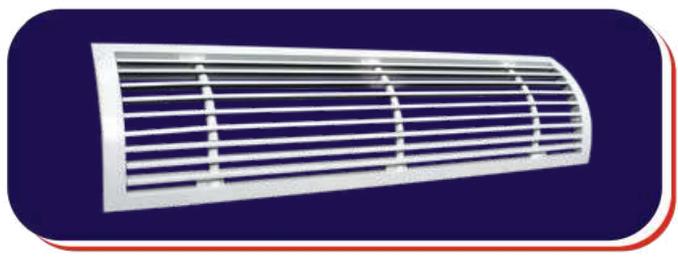
AIR DISTRIBUTION PRODUCTS

Fixed Bar Grille-Linear and Modular



- Grille direct the air with the help of fixed louver inclined at 0/15 deg
- Made of Heavy extruded aluminum frame and blade Fixed bar grille suitable for both supply and return application in cooling and heating.
- Ideal for side wall, Duct and ceiling application and for specific air pattern. Blade deflection available 0 and 15 deg. Available in one way, two way and four-way blade pattern.
- 17mm spacing also available for High flow/Exhaust application.
- Can be supplied without frame suitable for wooden frame fixing application.
- Maximum single piece length 1800 mm, can be supplied as modular and linear both.
- Optional Collar damper opposed blade type to control the Volume available in Aluminum and Steel Construction. Damper operation from face of the opening.
- High quality Gi/Aluminum plenum with side or top inlet to provide the uniform distribution of air through the whole grille.

Curved Duct Grille

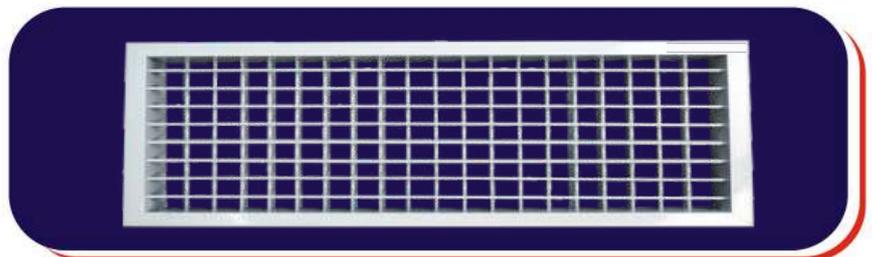


- Single Louver Curved duct Grille with Fixed blades or single set of adjustable blades.
- Rolled flanged to match the curved radius of the duct.
- Back side cut on the flange that enable to adjust the curve of the grille as per site requirement.
- Factory fitted collar damper



Double Louver Grille-With Adjustable Blades

- Made of extruded Aluminum Frame and Blade
- Ideal for ventilation application, Grilles blades are individually adjustable to provide the desired air pattern
- Two set of blades are mounted in such a manner that one set is horizontal and another set is vertical.
- Ideal for side wall, Duct, Ceiling and window application and for desired Jet spread air pattern
- High quality GI/Aluminum plenum with side or top inlet to provide the uniform distribution of air through the whole grille.
- Frame is separated from the blades by Nylon Bushing, for the smooth adjustment of the blades.
- Optional Collar damper opposed blade type to control the Volume available in Aluminum and Steel Construction.
- Suitable for Heating Cooling and Ventilation application.
- Centre support mullion to provide the strength to the grille length exceeding 500mm, to ensure the high quality and rigidity.



Butterfly Damper

- Constructed from High quality Aluminum or GI Sheet.
- Suitable for round duct system
- With one side, two side flange and with v groove to fix into Flexible duct.
- Flange welded on circular frame to support butterfly blades.
- Manually operated with lever/Handle.
- Key Operated Double Flap butter damper for Jet Nozzle Jet diffuser & round diffuser is available in various sizes



Fire Damper

Fire dampers constructed from GI Heavy gauge construction 16G frame and Blade.

- It is use to close the duct opening in case of Fire condition.
- Without sleeve for Duct installation and with Extended sleeve (400mm,500 600mm) option for wall application



a) Motorized Fire Damper



b) Fire Damper

Fusible Link Type:

- In fusible link type Fire Damper Blades are held in the open position by a straight bar link (fitted as standard)
- In case of Fire when temperature reach 74deg, Fuse melting allow the spring to close the fire damper and create the barrier to the fire.
- UL stamped Fusible link operated at 74 deg. Temperature.

Motorized Type:

Motorized Fire damper operates with panel and Temperature sensor, that sense the temperature in case of fire and passes the signal through panel to actuator to close the fire damper.

- Single skin 3V type groove type blade for proper and closer interlocking of the blades.
- Opposed blades construction makes Fire damper for controlling the flow of air with the least disturbance to flow in ducts.



Square Diffuser (For Gypsum and Grid Ceiling)

- Made from Extruded aluminum frame and aluminum sheet core.
- Multicone 4 way type design suitable for ceiling application with concentric arrangement for equal distribution of air in four direction.
- Spring Loaded Removable and interchangeable core design for cleaning and to access the damper for adjustment & plenum.
- Diffusers are specially designed for Ceiling down throw application
- Also available for Grid ceiling with 600x600mm outer size for neck size 150x150mm, 225x225mm, 300x300mm & 375x375mm.
- Optional Collar damper screw operated from face of the diffuser. Lever operated damper is also available on request.
- Aluminum/GI Plenum Available for Uniform distribution of air.



a) Square Diffuser



b) GI Volume Control Damper

GI Volume Control Damper

- Frame/Blade: High quality Galvanized sheet (18 G/20G as standard 16/16, 18/18, 16/18 also available)
- Single skin 3 V Groove design of the Blades for proper and closer interlocking of the blades
- Designed for heating cooling and ventilation application
- Application. General Purpose Volume control, opposed blade operation of the damper ensure the best v performance in airflow Modulating application
- Parallel operation of the blade is also available on request.
- Overall Size: Nominal +60mm
- Standard depth: 120mm (150 also available on request)
- Proper welding on joints and protected by aluminum spray to avoid rustin
- Handle with locking arrangement & open/close indication showing opening of the damper. Also available with Actuator for the motorized operation of the damper.
- Damper without flange is also available for insertion into duct system.
- Centre support mullion to provide the strength for bigger size damper, to ensure the high quality and efficiency of the damper.



Square Aluminum Plaque Type Diffuser

- Plaque type Ceiling Diffuser Used for supply and return air.
- Aesthetic look differ it from conventional ceiling diffuser.
- Suitable for Ceiling application
- Optional collar Damper available
- Size Available 150x150, 225x225,375x375, 450x450mm
- Suitable for Engineering and architectural Point of View
- Removable core from the face of the diffuser.



Round Plaque Type Diffuser

- Round Plaque type Ceiling diffuser are compatible for Low and medium pressure application used for supply and return air.
- Aesthetic round look differ it from conventional ceiling diffuser.
- Provide a balance between engineering and architectural needs, with a flush appearance.
- Optional butterfly Damper available.
- Size Available 200mm, 300mm.
- Suitable for Engineering and architectural Point of View.
- Delivers a uniform 360 degree air discharge pattern.



Collar damper

- Collar damper available in Aluminum, GI and MS. Suitable to fix into duct collar.
- Opposed blade operation and operated from front face of the grille/diffuser.
- Extruded Aluminum Collar damper can be supplied black anodized or in natural aluminum finish.
- Designed with nylon bushes for smooth and noise free operation.





Exhaust / Disc Valve

- Exhaust Valve is suitable for exhaust application and designed for low air flow movement in round duct work.
- Adjustable center disc, in and out movement of the disc adjusts the flow the air as per the requirement.
- Each Valve Supplied with round mounting ring, inner core can be easily removable from the ring for the cleaning purpose.
- Outer body and inner ring made of steel
- Sizes available:100, 150 & 200mm



Round Diffuser

- Circular diffuser can be used in supply and extract application, suitable for fixing into Exposed duct or ceiling application.
- Frame and core is made of high quality Aluminum sheet.
- Can handle large volume of air at low sound level.
- Designed to deliver air in 360 deg. Radial pattern at very low noise level.
- Removable Centre core to access the damper for adjustment and for cleaning purpose.
- Available with Plenum with top or side entry spigot and with Round Butterfly damper.
- Sizes available : 150, 200, 250, 300, 375 & 450mm



Stripline Diffuser

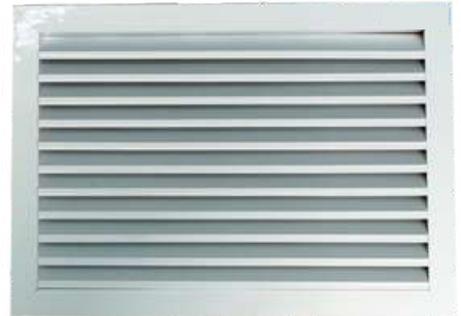
- Available in 1 way /2 way diffusion pattern.
- Size available on request (Maximum length 1800mm)
- Aesthetic round look differs it from conventional ceiling diffuser.
- Provide a balance between engineering and architectural needs, with a flush appearance.
- Suitable for Engineering and architectural Point of View.
- Finned blades provide horizontal airflow pattern.





Fresh/Intake Louver with bird screen

- Fresh Air Louver is ventilation product used for ventilation application that allow fresh air and keep away water, dirt and unwanted material.
- Use in air inlets of fresh air ducts and air handling units. It is also suitable for use at dirty air exhaust.
- Blades inclined at 45 deg.



Door Transfer Grille

- Single Deflection grille with horizontal fixed vanes.
- It is used in rest rooms and where air is to be transferred from one space to other.
- Available with double frame for finished look on both sides of the door.



Round Grille (Aluminum)

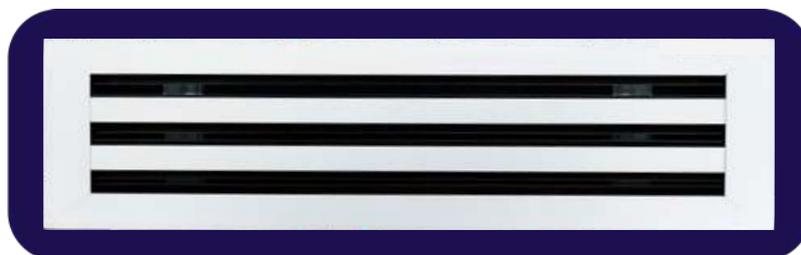
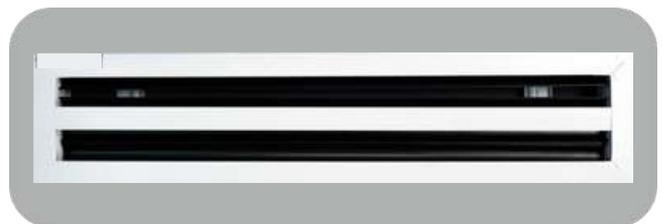
- Round grille Suitable for round ducts.
- Suitable for Supply/Exhaust and for ventilation purpose.
- Dia available 100, 150, 200mm





Slot Diffuser

- Slot diffusers are always most attractive and effective air control device.
- Slot diffuser are designed to satisfy architectural applications without compromising air distribution performance.
- Available in 1 to 8 Slots, 20 and 25mm width.
- Having Extruded aluminum black adjustable vane that provide aerodynamic pattern to meet the cooling requirement.
- Black vane provides the eyelash style.
- Best Suitable for Large areas Like Hotels, Mall and continuous length residential and commercial applications.
- Supplied with Alignment strip to avoid fixing issue in continuous multiple length installation.
- Adjustable vane control that direct and control the airflow.
- Available with mitered corner.
- Airpath can be adjusted 180 deg in each slot to provide desired air pattern as each slot is individually adjustable.
- Can be supplied with H/M Damper and Plenum.
- Slot Diffusers are design for draft free air supply into the required area and with Low pressure drop and low discharge noise.
- Frame is made of Heavy Aluminum Flush type section.
- Maximum single section length is 6 feet, length greater than 6 feet are supplied with multiple section along with alignment strip.
- Standard color: White/Black-other colors are available on request.



Gravity Louver

- Gravity Louver is made of Heavy Gi/Aluminum Frame to provide strength to the damper.
- Horizontally Mounted Free Rotatable Blades are made of Lightweight Aluminum/GI sheet, so that it can easily release pressure when required.
- Normally closed blades and open by air pressure of fan, when the fan is switched off, they are closed by gravity effect to avoid the discharge of air.
- Louvers Blades are fixed to the frame through a galvanized steel rods for rigid construction.
- The blades are positioned in such a way that provide maximum free area and minimum resistance to air.
- Other names are: Back Draft Damper/Non-Return Damper/Pressure relief damper/Over pressure damper/Auto Exhaust Damper. /Gravity Shutter.
- Mounting Options: Slip in Type -to insert into duct.
Duct Mounted with Both Side Flange
Wall Mounted with One side Flange
- Can be supplied with Gasket on Blades edges to provide the Air sealing to avoid air leakage as an option.
- Large Size can be supplied in Multiple section where each section operated individually.



a) Gravity Louver



b) GI Plenum Box

GI Plenum Box

- Plenum box are designed for high Ceiling application for equal distribution of air in cooling application.
- Made from heavy gauge Gi Sheet and easily installed with Flexible duct.
- Available with side and top spigot inlet option to meet the installation requirement.
- Factory fitted Round damper to Control the airflow.
- Internal acoustic insulation is also available to reduce the noise of the air.
- Various round opening options are available.
- Can be mounted directly on slot diffuser.



Eyeball Diffuser

Description

Eye Ball Jet Nozzles are used for the application where air has to travel long distance. Eye Ball Jet Nozzles are made of Aluminum Construction with in build cone where volume of air is very large and longer throw required. Which is not possible with normal Grilles Diffusers. Like large halls, assembly halls, airport terminals, theaters, arenas.



Product detail:

Constructed from good quality aluminium sheet.

Easy fixing with duct collar or frame.

Wall or ceiling mounting.

Large air volume and long throw.

Removable outer profile ring for access to concealed fixing flange.

Accurate air throw make it suitable for spot cooling.

Available Neck Size: -160, 200, 275, 315 & 400mm

Damper option

Two Flap Butterfly Damper to control the air volume, with sleeve for smooth movement of Eyeball. Damper can be operate from the face of the diffuser.



Spot Diffuser

Spot Type Jet Nozzles are used for the application where air has to travelling Long distance. Spot Jet Nozzles are made of Aluminum Construction, where volume of air is very large and longer throw required, which is not possible with normal Grilles Diffusers. Like large halls, assembly halls, airport terminals, theaters, arenas. Air direction is adjusted by movement of Jet Nozzle as per requirement.



Product Details

External ring with a flat circular and spherical nozzle manually adjustable to any angle within +40 deg

Can be mounted in virtually/Horizontal any location and any position, allowing freedom for precise air delivery regardless of installation conditions.

An Optional Mil I Finish GI Butterfly damper (2 flap) can be mounted at the Back of the Nozzle which would be operable from the mouth of the Nozzle Easy fixing with duct collar or frame.

Wall or ceiling mounting.

Large air volume and long throw.

Accurate air throw make it suitable for spot cooling.

Available sizes are: 75, 100, 200, 300 & 400mm



Jet Diffuser

Jet Diffuser is suitable for supplying cooled and heated air in large area. It is used for the application where air has to travelling Long distance, where volume of air is very large and longer throw required, which is not possible with normal Grilles Diffusers. Like large halls, assembly halls, airport terminals, theaters, arenas. The air flow pattern can be adjusted in any direction and is suitable for long distance air supply while maintaining low noise levels. Air direction is adjusted by movement of Jet Nozzle as per requirement.



Product Details

- Can be mounted in virtually/Horizontal any location and any position, allowing freedom for precise air delivery regardless of installation conditions.
- An Optional Mil I Finish GI Butterfly damper (2 flap) can be mounted at the Back of the Nozzle which would be operable from the mouth of the Nozzle Easy fixing with duct collar or frame.
- Wall or ceiling mounting.
- Large air volume and long throw.
- Accurate air throw make it suitable for spot cooling.
- Available sizes are: 250, 315 & 380mm
- The Core is fixed to axis which allow it to rotate at 360deg reversible of core to make jet pattern or diffuser pattern.



Decorative Grills

