

AIRONIX

'U name it, V make it'

AIRONIX STEEL & ALUMINIUM WORKS



ISO 9001:2015 Certified

GRILLS & REGISTERS

INDEX

GRILLS & REGISTERS >>>>> 1 – 6

EGG CRATE GRILLS >>>>> 7

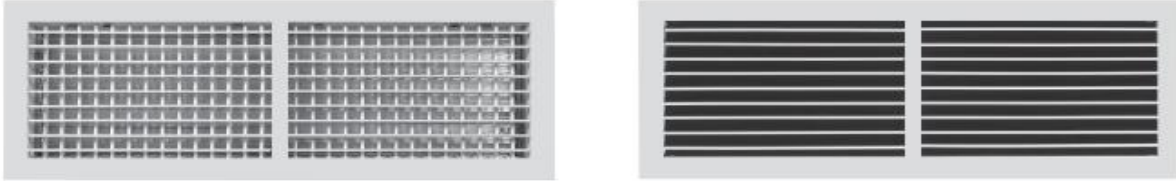
LINEAR BAR GRILLS >>>>> 8 – 11

DECORATIVE GRILLS >>>>> 12

HIDDEN LINEAR BAR >>>>> 13 – 14

CERTIFICATES >>>>> 15

AIRONIX Grills & Registers are the most desirable for side wall locations. Since they are available with both horizontal and vertical adjustable blades, minor air motion problem can be simply corrected by adjusting the vanes. They are distinguished by their high construction quality, low pressure drops and contained sound levels. Blades can be singularly oriented.



Features & Characteristic:

- Construction: Frame & blades are made of high-quality Extruded Aluminium Profiles of 6063 Alloy.
- Frame Flange width: 30 mm.
- Blades: Aero foil design with 20 mm center spacing as standard.
- The frame is assembled by punching its four corners by means of G.I. Angles which together create a very robust construction.
- Available in wide variety of standard neck size ranging from 300 x 150 up to 1200 x 300 mm in 50 mm increments (other non-standard sizes are available on request)
- Both the grille and registers are available in single or double blades deflection on which provides air deflection in horizontal and / or vertical planes.
- Blades are individually adjustable to any degree of deflection by hand without the use of special tools.
- Maximum effective area can be obtained when the blades are settled at 0° deflection
- Blades are separated from its frame by nylon bushes. This method of assembly provides maximum rattle-free performance and eliminates corrosion.
- A large free effective area grille can be obtained by using as egg crate core with 90% free area.
- Grilles combined with opposed blade dampers are called registers
- Accessories
- Available fixing mounting:
- Surface finishes.

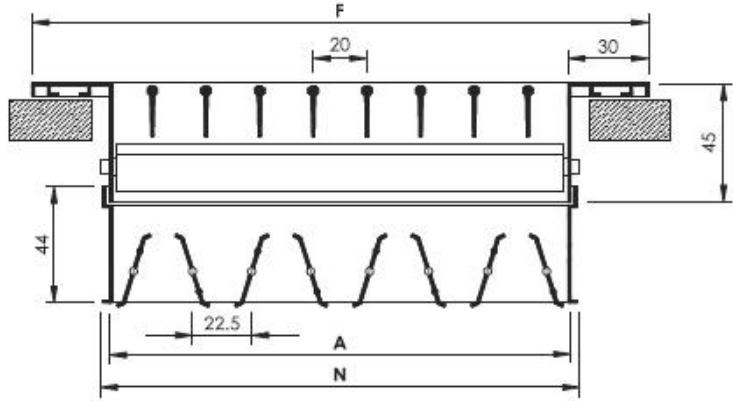
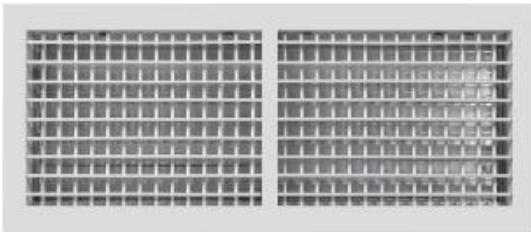


| Grilles / register model | Single deflection Blades | Double deflection Blades | Horizontal or Vertical Blades | Horizontal or Vertical Front Blades | Opposed Blade Damper | Fixed Blades at 45° Angle |
|--------------------------|--------------------------|--------------------------|-------------------------------|-------------------------------------|----------------------|---------------------------|
| SAG | | • | | • | • | |
| RAG | • | • | | • | | • |
| CAG | | • | • | | • | |
| ECG | | | | | • | |

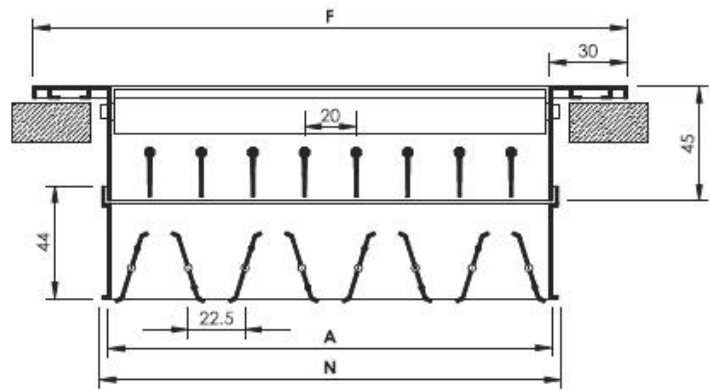
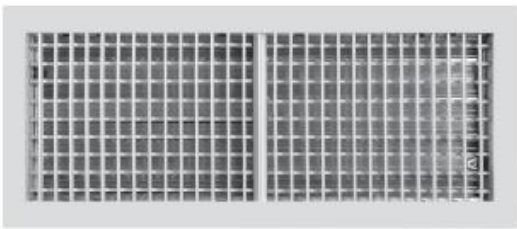
SAG – Supply Air Grill / Register
RAG – Return Air Grill

CAG – Combined Air Grill (Supply + Return)
ECG – Egg Crate Grill

Double Deflection Registers Construction and Dimensional Details



Front Blades Mounting : Horizontal



Front Blades Mounting : Vertical

- **SAG:** is Supply Air Grill / Register, double deflection blades with Opposed Blade Damper
- Registers are called Supply Air Grilles and Coded as SAG or SAR. They are always equipped with Opposed Blade Damper (provided as Standard).

N: Nominal / Listed Size = Length (L) X Height (H)

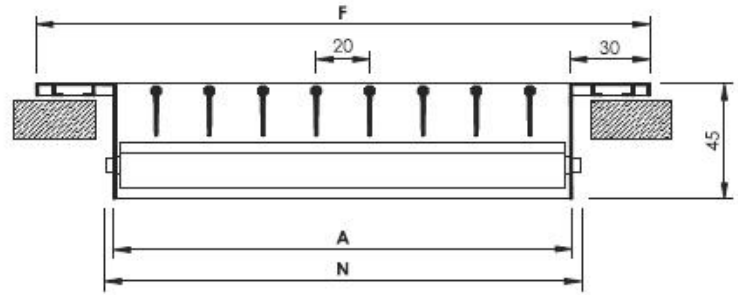
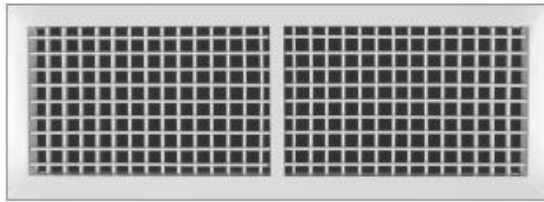
A: Actual Size = (L-10) X (H-10)

F: Face Size = (L+30) X (H+30)

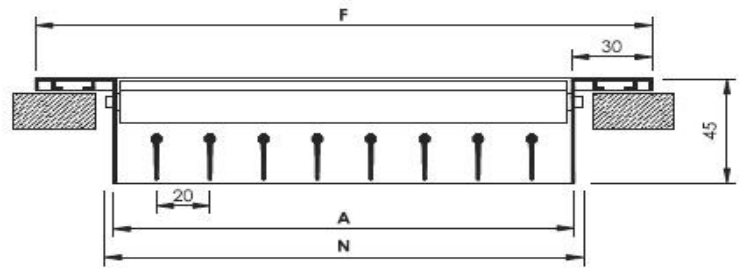
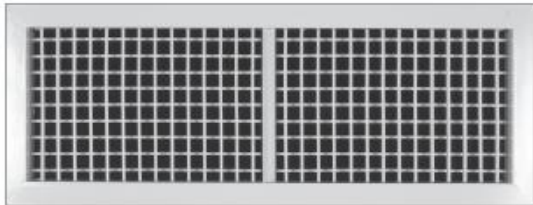
- Grilles ready neck sizes are approximately 10 mm less than the Nominal / Listed Size.
- All dimension are in mm and subject to ± 1 mm tolerance

GRILLS & REGISTERS

Double Deflection Grilles Construction and Dimensional Details



Front Blades Mounting : Horizontal



Front Blades Mounting : Vertical

- **SAG:** is a Supply Air Grilles, Double Deflection Blades with Opposed Blade Damper
- **RAG:** is a Return Air Grille, Double Deflection Blades without Opposed Blade Damper
- These are Double Deflection Return Grilles

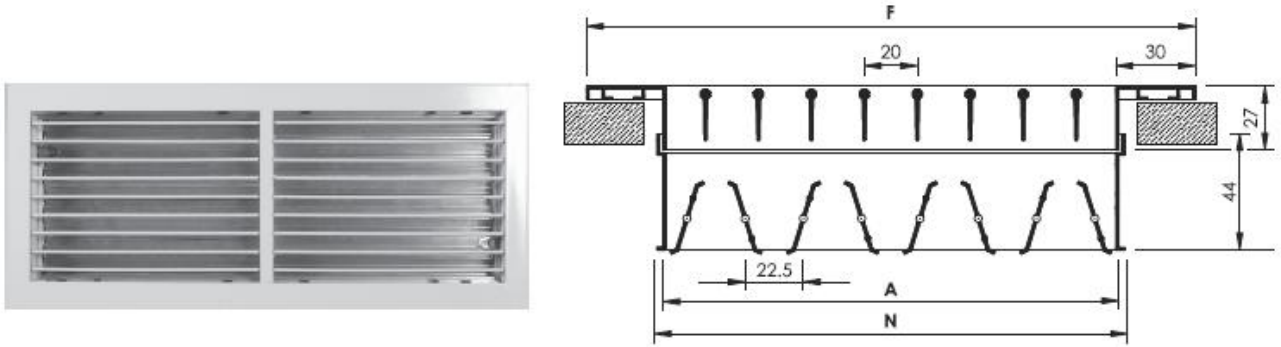
N: Nominal / Listed Size = Length (L) X Height (H)

A: Actual Size = (L-10) X (H-10)

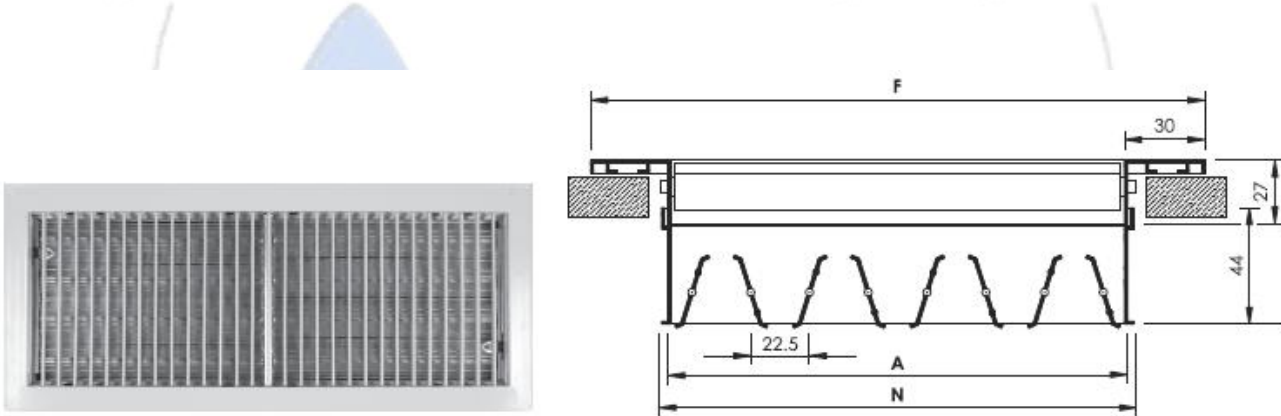
F: Face Size = (L+30) X (H+30)

- Grilles furnished approximately 10 mm less than the Nominal / Listed Size.
- All dimension are in mm and subject to ± 1 mm tolerance
- **CAG:** is a **COMBINED** Air Grille, Double Deflection Blades with Opposed Blade Damper
- The OBD is fixed for half the length of the grill, or as specified by customer.
- The purpose of **CAG** is to provide both Supply & Return functionality in One Grill

Single Deflection Grilles Construction and Dimensional Details



Blades Mounting : Horizontal



Blades Mounting : Vertical

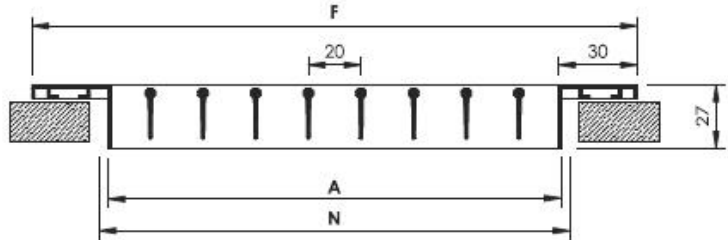
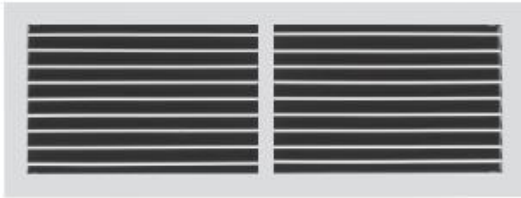
- **HSDRAG** is a single deflection **Horizontal** Blade Extract /Return / Exhaust Air Grille without OBD
- **VSDRAG** is a single deflection **Vertical** Blade Extract /Return / Exhaust Air Grille without OBD

N: Nominal / Listed Size = Length (L) X Height (H)
 A: Actual Size = (L-10) X (H-10)
 F: Face Size = (L+30) X (H+30)

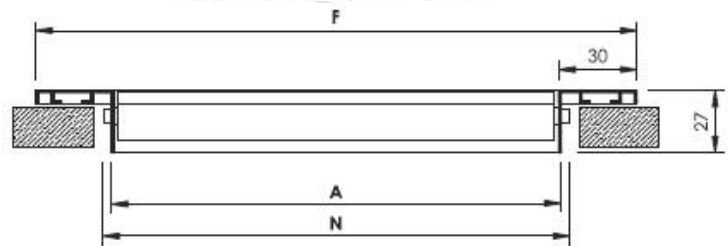
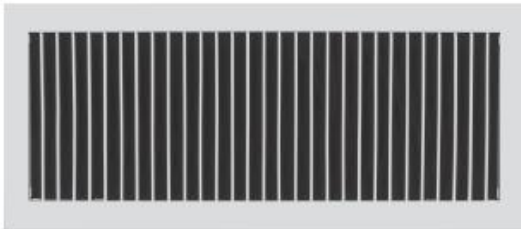
- Grilles are furnished approximately 10 mm less than the Nominal / Listed Size.
- All dimensions are in mm and subject to \pm mm tolerance

GRILLS & REGISTERS

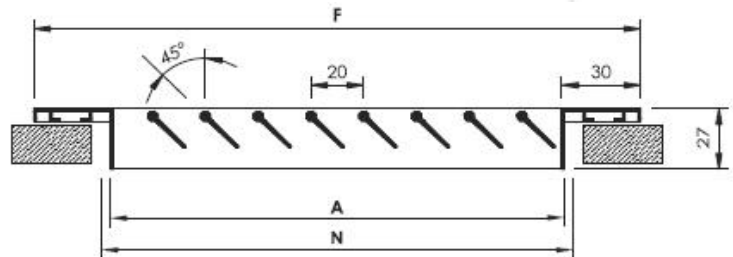
Single Deflection Grilles & Fixed Blade 45° Construction and Dimensional Details



Blades Mounting : Horizontal



Blades Mounting : Vertical



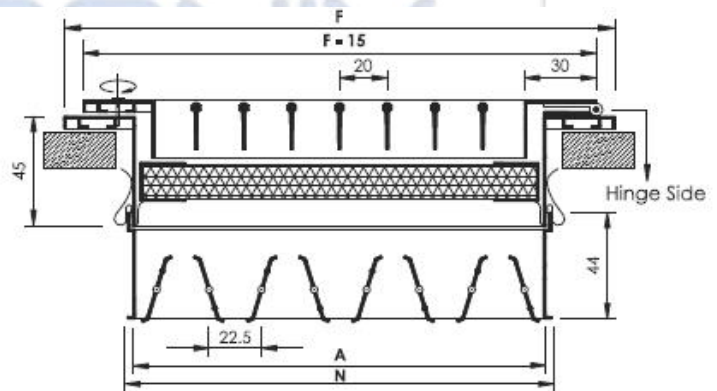
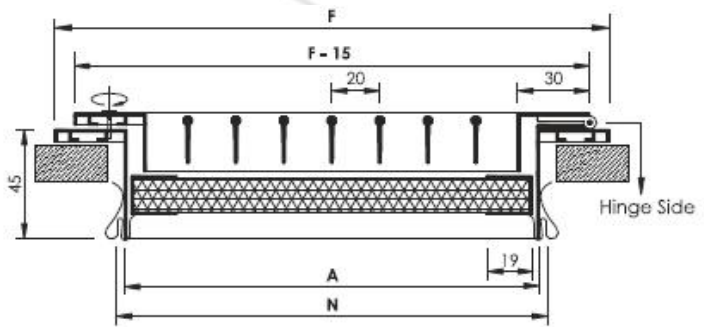
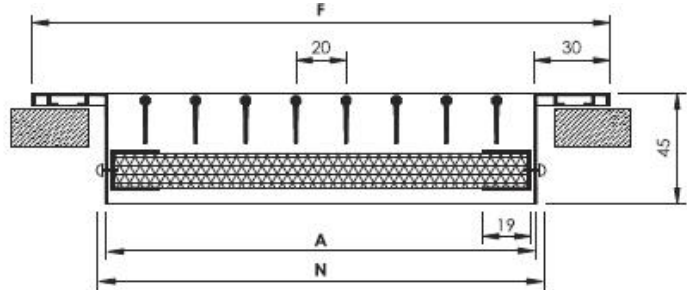
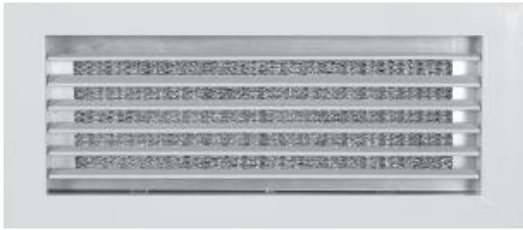
Blades Mounting : Horizontal, set in a fixed position at an angle of 45°

- **RAG45 / EAG45** is Return, Extract Air Grille, Single Deflection Blades w/o Opposed Blade Damper
- Grilles called Return, Extract or Exhaust Air Grille and Coded as RAG45 / EAG45 are usually supplied with 45 degree fixed blades

N: Nominal / Listed Size = Length (L) X Height (H)
 A: Actual Size = (L-10) X (H-10)
 F: Face Size = (L+30) X (H+30)

- Grilles furnished approximately 10 mm less than the Nominal / Listed Size.
- All dimension are in mm and subject to ± mm tolerance

Single Deflection Grilles Fresh Air Grilles and Registers

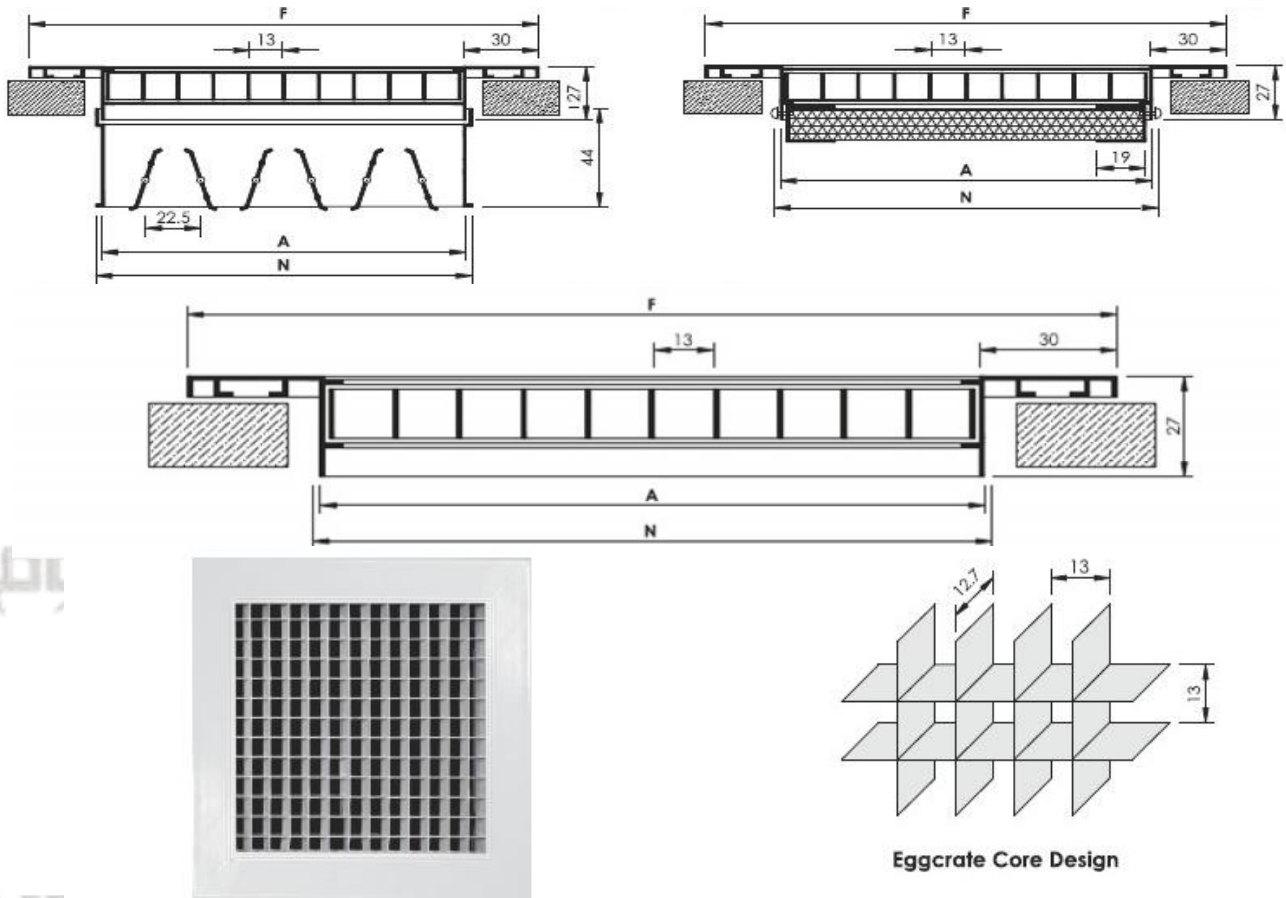


- **FAG** : Fresh Air Grille, Single Deflection Blades with Alluminium Washable Filter Media ½ " thickness.
- Double Frame Grilles are provided with door hinges from one side and Screw from other side allowing the second frame (inner one) to act as an access door to the Filter and/ or Opposed Blade Damper

N: Nominal / Listed Size = Length (L) X Height (H)
 A: Actual Size = (L-10) X (H-10)
 F: Face Size = (L+30) X (H+30)

- Grilles / Registers furnished approximately 10 mm less than the Nominal / Listed Size.
- All dimension are in mm and subject to \pm mm tolerance

Egg Crate Grilles & Registers Construction & Dimensional Details



- The Egg Crate grilles with Aluminium Egg Crate mesh are normally used for the return and recirculation of air inside offices, living area, commercial centers, etc.
- The particular design of the Egg Crate central core of 13 x 13 mm opening permits the use of a large free surface area (90 % Free Area) without turbulence.
- The Egg Crate grille frame with the channel border is used to fix the central core.
- In respect to traditional grilles with inclined or fixed blades, it's possible to reduce the grilles dimensions while maintaining equal performance or reduce noise level and pressure drop while maintaining equal dimension and air flow.
- Egg Crate grilles can be mounted either horizontally or vertically (ceiling or side wall) without affecting their aesthetic form or performance.
- The Egg Crate grilles are available with standard accessories such as Opposed Blade Damper or Aluminium Washable Filter Media of 1/2" thickness.

N: Nominal / Listed Size = Length (L) X Height (H)

A: Actual Size = (L-10) X (H-10)

F: Face Size = (L+30) X (H+30)

- Egg Crate Grilles are furnished approximately 10 mm less than the Nominal / Listed Size.

LINEAR BAR GRILLES & REGISTERS

AIRONIX Linear fixed Bar Grilles / Registers are used satisfactorily in locations where flow direction is not critical or can be predetermined. The Linear Bar Grilles / Registers with fixed horizontal bars satisfy the architectural requirements of large areas where continuous input along the wall is requested for wall mounted installation, window sill and covering furniture for fan coils.



Features & Characteristics:

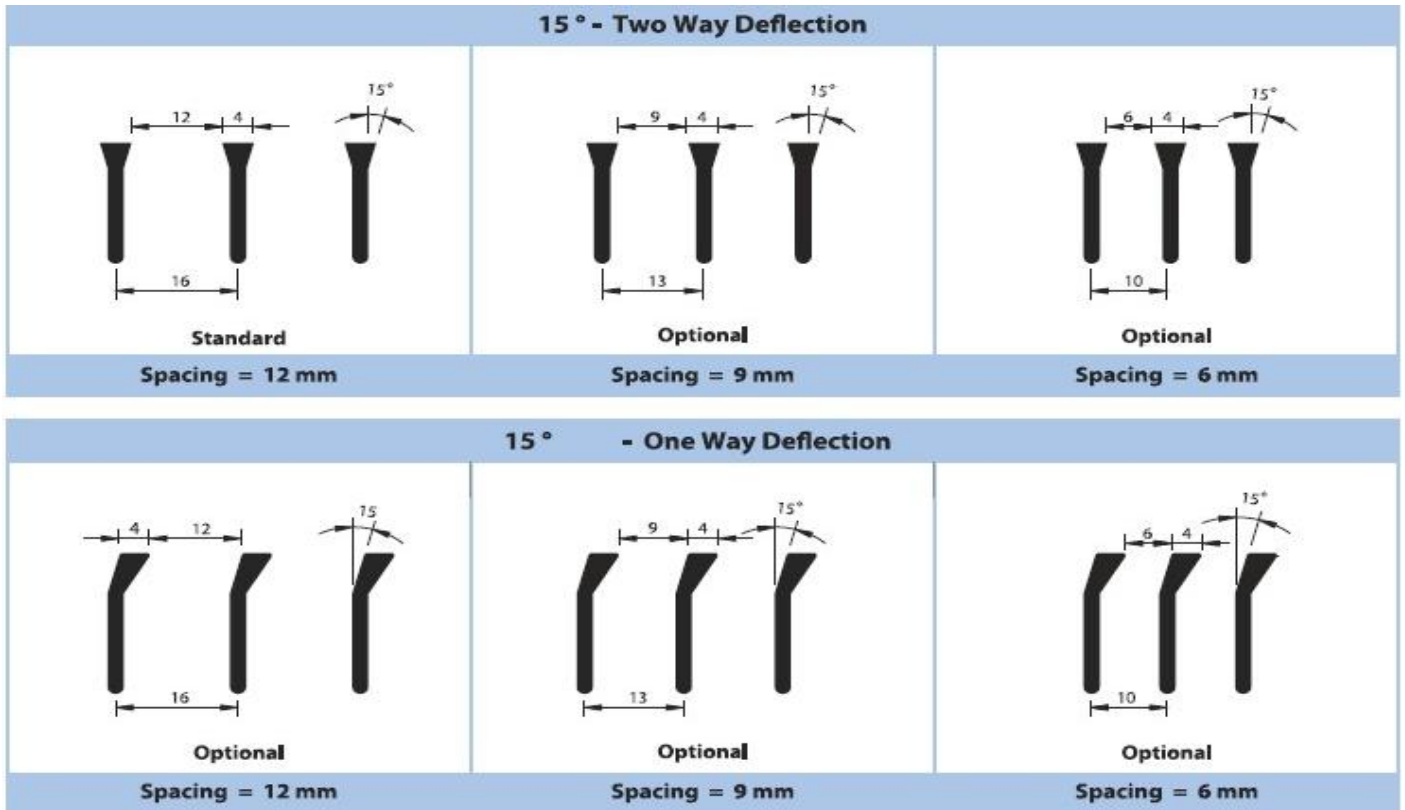
- Construction: Frame & Face bars are made of high-quality Extruded Aluminium profile of 6063 alloy.
- Frame Flange width: 30 mm.
- Face Bars (core style): Available in two different bar deflections, the standard one is the 15° - 2-way deflection and the optional one is the 15° - 1-way deflection.
- Bar Spacing: Spacing of the adjacent fixed bar blades are set at 12mm as standard. Also available in 9 & 6 mm spacing as an option.
- Available with vertical Aluminium Aerofoil rear blades fixed to the frame by means of nylon bushes. These blades can be adjusted manually and individually in the vertical plane to achieve the optimum throw deflection and air distribution.
- The frame is assembled by punching it's four corners by means of G.I Angels which together create a very robust construction.
- For continuous runs, units are supplied in section and can be designed to incorporate additional features such as active / dummy section and mitered corners.
- To maintain perfect and unbroken appearance for continuous runs, alignment joining strips are provided in proper lengths and quantities with no extra cost.
- Available in wide variety of standard heights ranging from 50mm neck size up to 300 mm in 50 mm increments (other none standard sizes are available on request).
- Linear bar grilles combined with Opposed Blade Damper are called Linear Bar Registers.
- Mullion pipes are placed at a distance of 300 mm maximum from each other.



| Linear Bar Grilles / Registers Model | Fixed Bar Blades with Vertical Rear Blades | Fixed Bar Blades w/o Vertical Rear Blades | Opposed Blade Damper |
|--------------------------------------|--|---|----------------------|
| SLBG | • | • | • |
| RLBG | • | • | |
| CLBG | • | • | • |
| SDSLBG | | • | • |
| SDRLBG | | • | |

LINEAR BAR GRILLS & REGISTERS

Core style (Deflection and Spacing)



- All Dimension are in mm and subject to ± 0.5 mm Tolerance

OPERATING RANGE & QUICK SELECTION TABLE FOR THE LINEAR BAR GRILLS / REGISTERS

| WITH VERTICAL REAR BLADES | | | W/O REAR BLADES | | | | | | |
|---------------------------|-----|--------------|-----------------|------|-----------------|-----|--------------|-----------|------|
| STANDARD HEIGHT | | Length MM | CFM RANGE | | STANDARD HEIGHT | | Length MM | CFM RANGE | |
| Inch | MM | | Inch | MM | Inch | MM | | | |
| 4" | 100 | 1000 | 350 | 800 | 4" | 100 | 1000 | 500 | 1100 |
| 6" | 150 | | 550 | 1250 | 6" | 150 | | 725 | 1650 |
| 8" | 200 | | 725 | 1700 | 8" | 200 | | 950 | 2100 |
| 10" | 250 | | 850 | 2000 | 10" | 250 | | 1250 | 2500 |
| 12" | 300 | | 1080 | 2300 | 12" | 300 | | 1450 | 3400 |
| 4" | 100 | 1500 | 550 | 1250 | 4" | 100 | 1500 | 700 | 1600 |
| 6" | 150 | | 800 | 1850 | 6" | 150 | | 1075 | 2350 |
| 8" | 200 | | 1080 | 2300 | 8" | 200 | | 1425 | 3150 |
| 10" | 250 | | 1300 | 2600 | 10" | 250 | | 1875 | 3750 |
| 12" | 300 | | 1600 | 3700 | 12" | 300 | | 2175 | 5100 |
| 4" | 100 | 2000 | 750 | 1600 | 4" | 100 | 2000 | 1000 | 2200 |
| 6" | 150 | | 1100 | 2500 | 6" | 150 | | 1450 | 3300 |
| 8" | 200 | | 1450 | 3400 | 8" | 200 | | 1900 | 4200 |
| 10" | 250 | | 1700 | 4000 | 10" | 250 | | 2500 | 5000 |
| 12" | 300 | | 2160 | 4600 | 12" | 300 | | 2900 | 6800 |

- CFM values are based on Noise Level ranging from 15-35(dB).

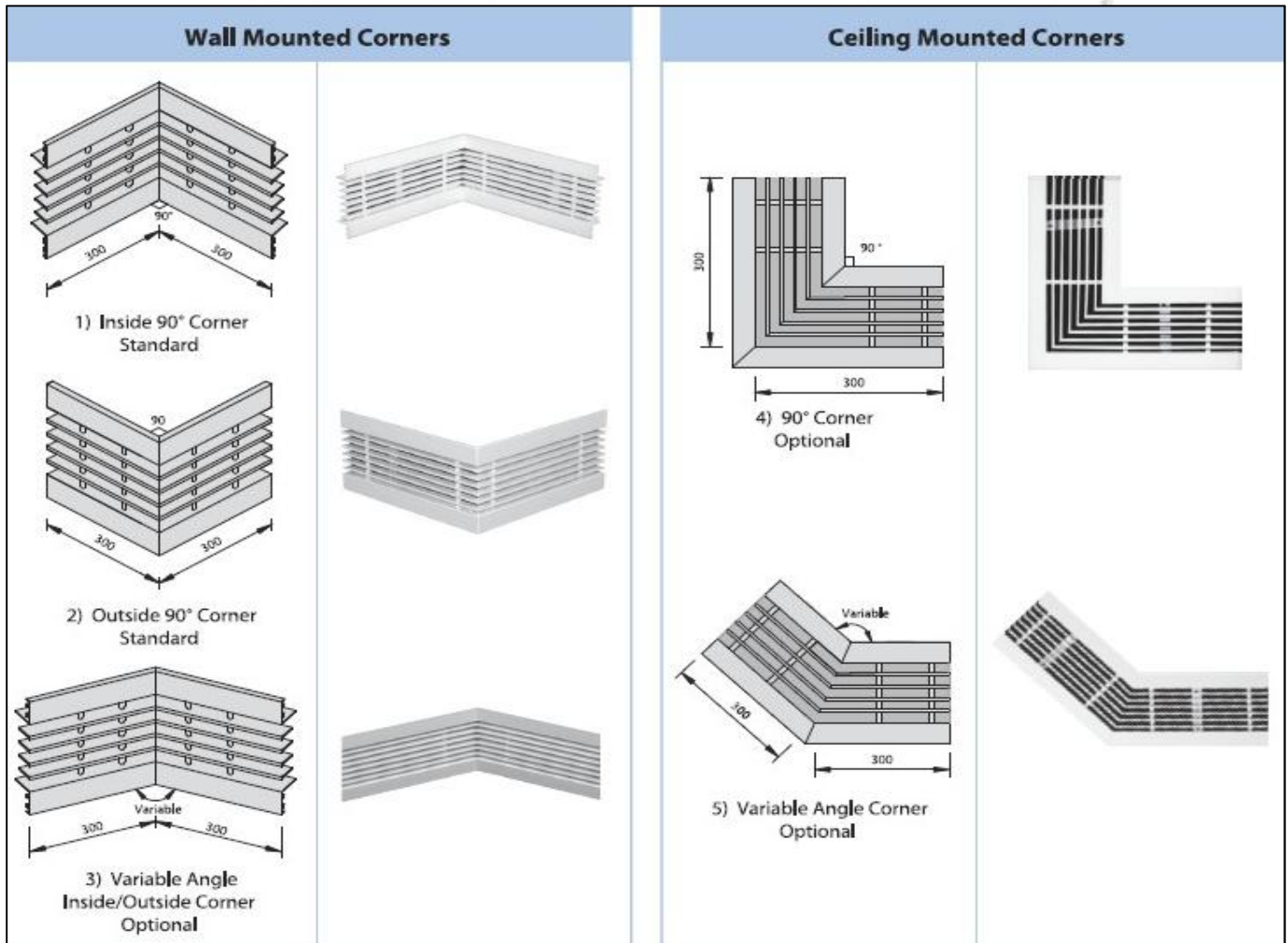
LINEAR BAR GRILLS & REGISTERS

NO OF SECTION PER RUNNING UNIT

| LINEAR BAR GRILLE / REGISTER HEIGHT | | ONE SECTION | TWO SECTION | MULTI SECTIONS |
|-------------------------------------|------|-------------|-------------|----------------|
| MM | Inch | | | |
| 50 | 2" | 4.0 | >4.0 | >6.0 |
| 100 | 4" | 4.0 | >4.0 | >6.0 |
| 150 | 6" | 4.0 | >4.0 | >6.0 |
| 200 | 8" | 4.0 | >4.0 | >6.0 |
| 250 | 10" | 3.5 | >3.5 | >6.0 |
| 300 | 12" | 3.5 | >3.5 | >6.0 |

- Above arrangements are approximate and subject to change according to order / site conditions.

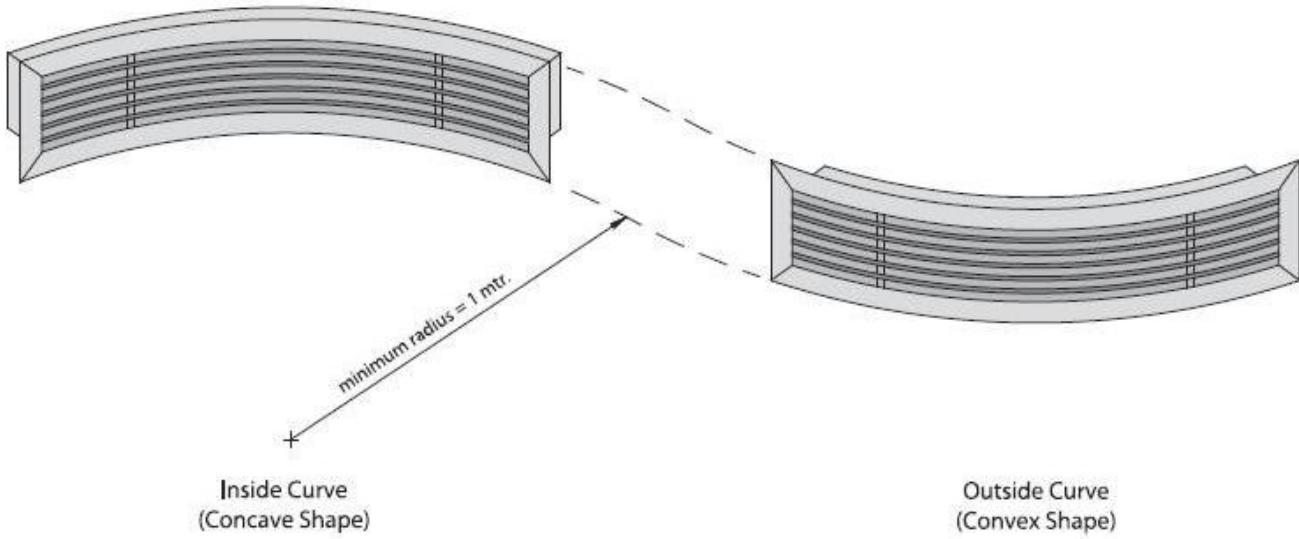
LBG MITERED CORNER



- Corners are always supplied in 300 X 300 mm adjacent sides as standard unless otherwise specified or required.

LINEAR BAR GRILLES & REGISTERS

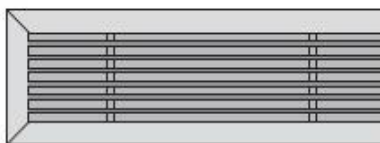
Linear Bar Grilles / Registers in curved shape



End Cap / Flange Arrangement



End Cap at Both Sides



End Cap at One Side



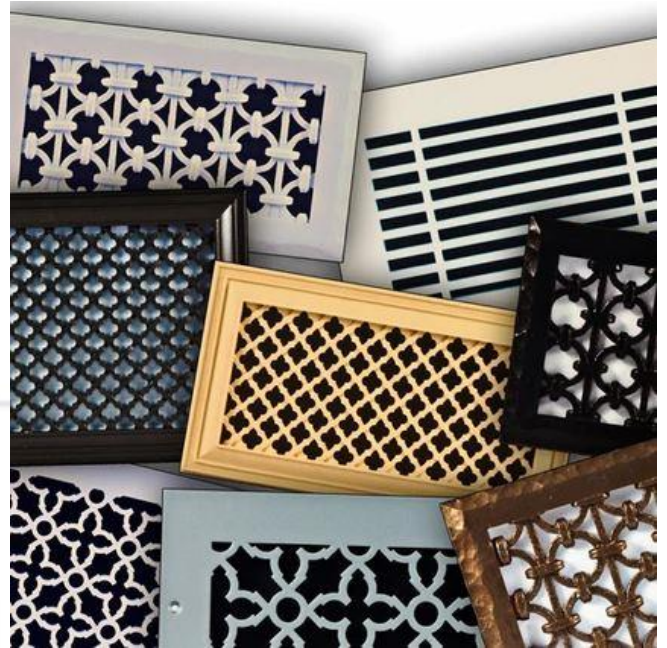
Open Ends

- Curves can be fabricated in minimum curvature radius = 1mtr.
- Curve application can be fabricated also in linear with rear blades.
- Curve application are not possible for ceiling instalments.

DECORATIVE GRILLS

ورشة ايرونيكس للحداثة والالمنيوم

AIRONIX
AIRONIX STEEL & ALUMINIUM WORKS



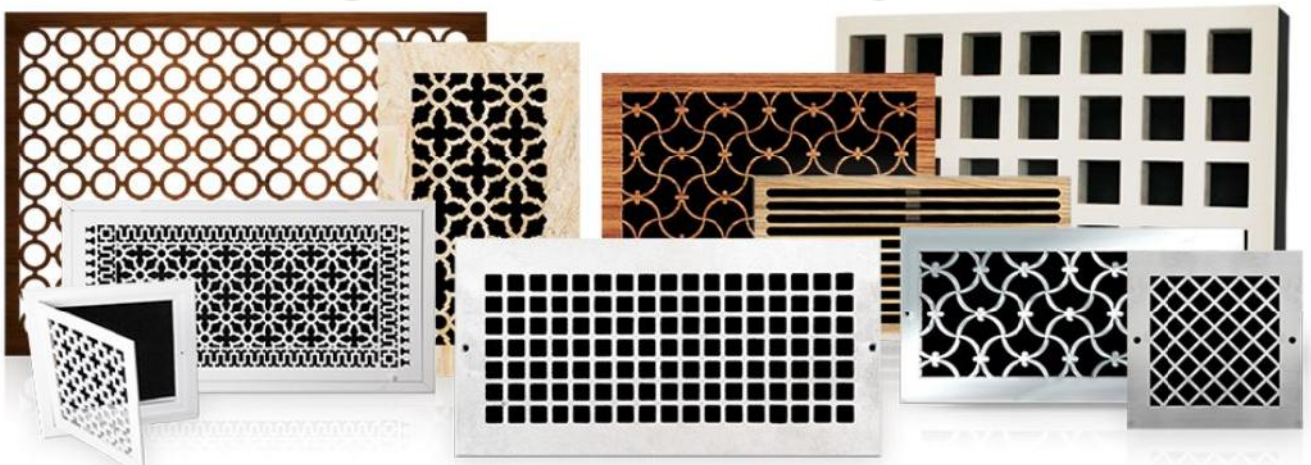
AIRONIX decorative grills & diffusers is a ceiling and wall air terminal device that is composed of decorative sheet, fixed to frame.

The decorative sheet is made of heavy gauge GI, or aluminium, powder coated to RAL 9016 or RAL 9010 as standard, other colors are available as per the decorator request.

The frame is made of extruded aluminium. Fixing option is concealed spring fixing for wall mounting, or visible screw fixing for ceiling mounting.

These decorative grills are mostly using in villas, mosque & luxury palaces etc.

AIRONIX Decorative / Artistic grills and diffusers are ceiling and wall air terminal devices which are specially designed and crafted on CNC Laser Machines to match the client's choice as per the area decor, to perfectly create an ambience of matching designs. Matching colour and texture is also assigned to it.



- Standard technical specifications are similar to SAG/RAG Grills & Registers or modified to customer requirements

HIDDEN LBG

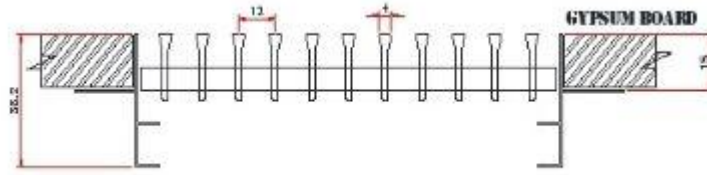
The latest inclusion in **AIRONIX** products are HIDDEN LBG. These are flangeless (Hidden Flanges) linear bar grills and installed above the gypsum ceiling for a frameless aesthetic view.

HIDDEN LBG grills are highly recommended with FG or FH borders due to heavy reinforcement. Dust deposits are easily cleaned by removing the core from its frame. The grill is made of single fixed horizontal blades core connected to SS mounting spring clip specially designed for rigid fixing. These grilles have standard finish of high quality, hard baked electrostatic powder coating for long life and easy cleaning. Standard color is white color RAL 9016, other colors available on request. Customer support department technicians are available to take actual measurements on site on request.



- **Hidden Linear Bar Grills** also known as **GYPNUM LBG** or **CONCEALED LBG** are coded as **HLBG**

HIDDEN LBG



15mm spacing, 0° DEFLECTION ("T" Bar)

Performance Data:

| NOMINAL WIDTH (Inches) | AREA Sq. Ft. (Effective free area/ Linear foot) | VELOCITY (FPM) | | | | | | | | | | | |
|------------------------|---|---------------------------|-------|---------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | | 400 | 600 | 800 | 1000 | 1200 | 1400 | 1600 | 1800 | 2000 | | | |
| | | TOTAL PRESSURE (in. W.G.) | | | | | | | | | | | |
| | | 0.01 | 0.022 | 0.04 | 0.063 | 0.089 | 0.121 | 0.159 | 0.202 | 0.25 | | | |
| 2 | .045 | Flow, CFM / Foot | | | | | | | | | | | |
| | | Throw, Feet | | Sill or floor | 1-1 | 4-4 | 7-7 | 9-10 | 11-13 | 14-16 | 16-18 | 17-20 | 19-21 |
| | | Sidewall | | 5-7 | 9-12 | 11-16 | 14-20 | 16-23 | 19-26 | 21-28 | 22-30 | 25-33 | |
| NC | | <20 | <20 | <20 | <20 | 23 | 28 | 32 | 35 | 38 | | | |
| 2½ | .066 | Flow, CFM / Foot | | | | | | | | | | | |
| | | Throw, Feet | | Sill or floor | 2-2 | 6-6 | 8-9 | 12-13 | 14-16 | 17-19 | 20-22 | 22-23 | 23-24 |
| | | Sidewall | | 6-9 | 9-12 | 12-17 | 16-22 | 19-25 | 21-28 | 25-32 | 28-36 | 30-39 | |
| NC | | <20 | <20 | <20 | 20 | 25 | 30 | 34 | 37 | 40 | | | |
| 3 | .088 | Flow, CFM / Foot | | | | | | | | | | | |
| | | Throw, Feet | | Sill or floor | 2-2 | 7-7 | 10-11 | 13-15 | 16-18 | 19-21 | 22-24 | 24-25 | 26-27 |
| | | Sidewall | | 7-10 | 11-15 | 14-19 | 17-23 | 21-27 | 24-31 | 27-34 | 31-39 | 34-42 | |
| NC | | <20 | <20 | <20 | 21 | 26 | 31 | 35 | 38 | 41 | | | |
| 3¾ | .110 | Flow, CFM / Foot | | | | | | | | | | | |
| | | Throw, Feet | | Sill or floor | 3-3 | 8-8 | 12-12 | 15-16 | 19-20 | 21-22 | 24-25 | 26-27 | 29-29 |
| | | Sidewall | | 7-10 | 12-16 | 16-20 | 20-25 | 23-28 | 26-32 | 29-36 | 32-40 | 36-44 | |
| NC | | <20 | <20 | <20 | 22 | 27 | 32 | 36 | 39 | 42 | | | |
| 4 | .133 | Flow, CFM / Foot | | | | | | | | | | | |
| | | Throw, Feet | | Sill or floor | 3-3 | 9-9 | 13-13 | 16-17 | 20-21 | 23-24 | 25-26 | 28-28 | 31-31 |
| | | Sidewall | | 8-11 | 13-17 | 17-21 | 21-26 | 25-30 | 28-34 | 30-37 | 35-42 | 38-46 | |
| NC | | <20 | <20 | <20 | 23 | 28 | 33 | 37 | 40 | 43 | | | |
| 5 | .177 | Flow, CFM / Foot | | | | | | | | | | | |
| | | Throw, Feet | | Sill or floor | 4-4 | 10-10 | 15-15 | 18-18 | 22-23 | 25-25 | 27-28 | 30-30 | 34-34 |
| | | Sidewall | | 10-13 | 14-18 | 19-23 | 22-27 | 27-32 | 31-37 | 33-40 | 37-44 | 41-48 | |
| NC | | <20 | <20 | <20 | 24 | 29 | 34 | 38 | 41 | 44 | | | |
| 6 | .222 | Flow, CFM / Foot | | | | | | | | | | | |
| | | Throw, Feet | | Sill or floor | 5-5 | 10-10 | 15-15 | 19-19 | 23-23 | 25-25 | 29-29 | 31-31 | 36-36 |
| | | Sidewall | | 11-14 | 16-20 | 20-24 | 24-29 | 29-34 | 33-39 | 35-41 | 40-46 | 44-50 | |
| NC | | <20 | <20 | <20 | 25 | 30 | 35 | 39 | 42 | 45 | | | |
| 8 | .274 | Flow, CFM / Foot | | | | | | | | | | | |
| | | Throw, Feet | | Sill or floor | 6-6 | 11-11 | 16-16 | 20-20 | 24-24 | 26-26 | 30-30 | 32-32 | 37-37 |
| | | Sidewall | | 12-15 | 17-21 | 21-25 | 25-30 | 30-35 | 34-40 | 36-42 | 41-47 | 45-51 | |
| NC | | <20 | <20 | 20 | 26 | 31 | 36 | 40 | 43 | 46 | | | |
| 10 | .338 | Flow, CFM / Foot | | | | | | | | | | | |
| | | Throw, Feet | | Sill or floor | 6-6 | 11-11 | 16-16 | 21-21 | 25-25 | 26-26 | 32-32 | 33-33 | 38-38 |
| | | Sidewall | | 13-16 | 19-23 | 22-26 | 27-32 | 32-37 | 36-42 | 38-43 | 43-49 | 48-53 | |
| NC | | <20 | <20 | 21 | 27 | 32 | 37 | 41 | 44 | 47 | | | |

Certificate of Registration

ISO 9001:2015

*This is to Certify that
Quality Management Systems of*

AIRONIX STEEL & ALUMINIUM WORKSHOP

**PO Box 1404, New Industrial Area
Umm Al Quwain, UAE**

has been assessed and found to conform to the requirements of

ISO 9001:2015

for the following scope:

**Smithery and Welding Workshop, Aluminium & Glass
Installation Workshop.**

| | | |
|---------------------------|---------------------|-----------------------------|
| Certificate No. | : 179AGA2901 | |
| Initial Registration Date | : 17.08.2020 | Issuance Date: 19.08.2020 |
| Date of Expiry * | : 18.08.2023 | |
| 1st Surve. Due | : 18.08.2021 | 2nd Surve. Due : 18.08.2022 |



Director

Accurate Global Ltd.

Address- 27, Old Gloucester Street, London, WC1N3AX, United Kingdom

**Validity of the Certificate is subject to successful completion of surveillance audit on or before of due date. (in case surveillance audit is not allowed to be conducted, this certificate shall be suspended/withdrawal).*

Certificate Verification: Please Re-check the validity of certificate at www.accurateiso.com at Active Clients. Certificate is the property of Accurate Global Ltd. London, UK and shall be returned immediately when demanded).

