



GRILLES & REGISTERS



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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SUPPLY REGISTER

Double Deflection Front Horizontal Blades

Construction Details

Frame

Airwellcare Grilles & Registers are constructed With high quality extruded Aluminium Profiles With 30mm Flange Width.

Flange Width below 30mm is optional.

Blades & Spacing

Extruded Aluminium aerofoil blades.
Standard Blade Spacing of 20mm.

Damper frame & Blades

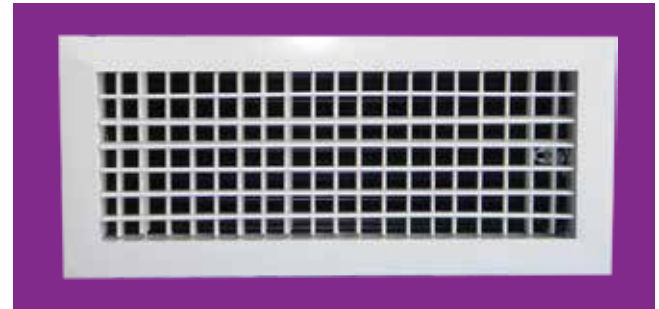
Extruded aluminium profiles with mill finish.
Black Matt finish Is optional.

Standard Finishes

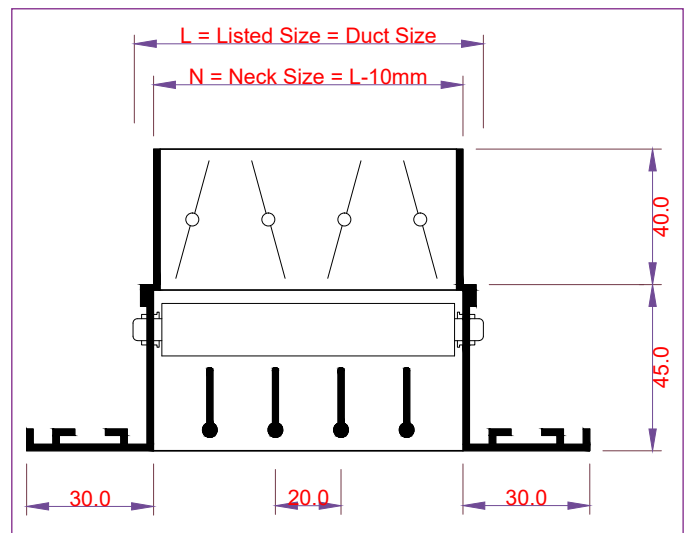
- ❖ Powder coated finishes as per RAL Colour codes.
- ❖ Also flexible to the customer's requirement.

Description:

- ❖ Opposed Blade Dampers are rigidly secured with the frame by grippers.
Damper blades are adjustable from the face of Register by rotating the screw manually.
- ❖ Registers will have two deflection blades arranged with front blades in horizontal position and the rear blades in vertical position, as shown in the picture.
- ❖ Deflection Blades can be manually adjustable to the desired position, to provide air deflection in both horizontal and vertical directions.
- ❖ Bushes are of Nylon and properly positioned in the frame through which the deflection blades pass through, to provide rattle free smooth operations.
- ❖ Foam Gasket (Optional) can be provided all around the back of frame, to prevent the leakage of air.



Front Horizontal



RETURN AIR REGISTER & RETURN AIR GRILLE

Model AWC RAR-SD

Return Air Register

Single Deflection with Opposed Blade Damper

Model AWC RAG-DD

Return Air Grille/ Exhaust Air Grille

Double Deflection without Damper

Note: The Design and Construction is same for the above models.

Model: AWC SR-V

SUPPLY REGISTER

Double Deflection Front Vertical Blades

Construction Details

Frame

Airwellcare Grilles & Registers are constructed With high quality extruded Aluminium Profiles With 30mm Flange Width.

Flange Width below 30mm is optional.

Blades & Spacing

Extruded Aluminium aerofoil blades.
Standard Blade Spacing of 20mm.

Damper frame & Blades

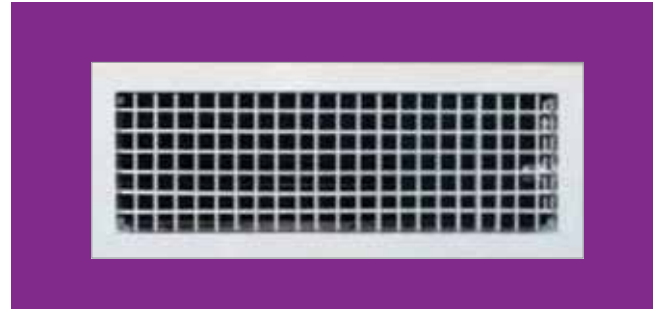
Extruded aluminium profiles with mill finish. Black Matt finish is optional..

Description:

- ❖ Opposed Blade Dampers are rigidly secured with the frame by grippers.

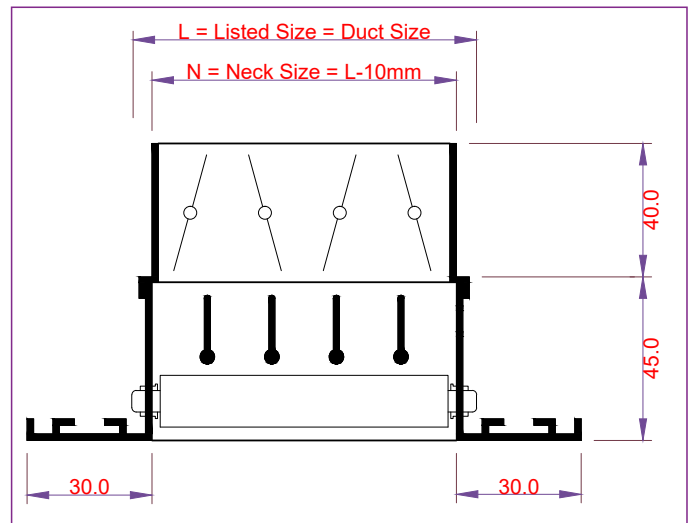
Damper blades are adjustable from the face of Register by rotating the screw manually.

- ❖ Registers will have two deflection blades arranged with front blades in horizontal position and the rear blades in vertical position, as shown in the picture.
- ❖ Deflection Blades can be manually adjustable to the desired position, to provide air deflection in both horizontal and vertical directions.
- ❖ Bushes are of Nylon and properly positioned in the frame through which the deflection blades pass through, to provide rattle free smooth operations.
- ❖ Foam Gasket (Optional) can be provided all around the back of frame, to prevent the leakage of air.



Standard Finishes

- ❖ Powder coated finishes as per RAL Colour codes.
- ❖ Also flexible to the customer's requirement



RETURN AIR REGISTER & RETURN AIR GRILLE

Model AWC RAR-SD

Return Air Register

Single Deflection with Opposed Blade Damper

Model AWC RAG-DD

Return Air Grille/ Exhaust Air Grille

Double Deflection without Damper

Note: The Design and Construction is same for the above models.

SINGLE DEFLECTION GRILLES

Fixed Horizontal Blades

Construction Details

Frame

Airwellcare Grilles & Registers are constructed With high quality extruded Aluminium Profiles With 30mm Flange Width.

Flange Width below 30mm is optional.

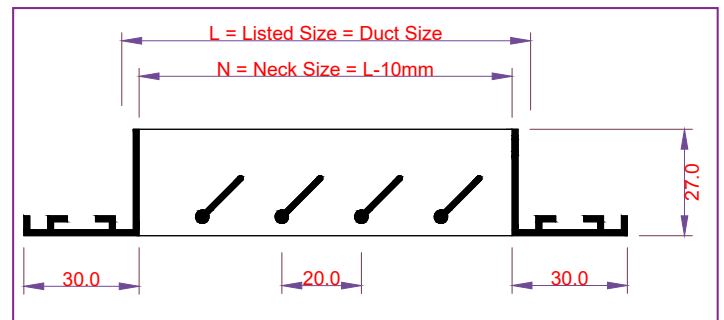
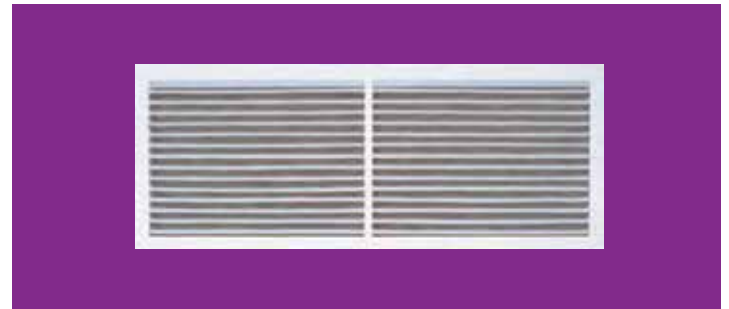
Blades & Spacing

Extruded Aluminium aerofoil blades.

Standard Blade Spacing of 20mm..

Description:

- ❖ The frame and blades are made of high quality extruded aluminium corrosion resistance profile.'
- ❖ Deflection blades are fixed rigidly to the frame at an angle of 45° to the horizontal plane.



Standard Finishes

- ❖ Powder coated finishes as per RAL Colour codes.
- ❖ Also flexible to the customer's requirement



Model: AWC SDA-H / SDA-V

SINGLE DEFLECTION GRILLES

Adjustable Horizontal Blades

Construction Details

Frame

Airwellcare Grilles & Registers are constructed With high quality extruded Aluminium Profiles With 30mm Flange Width.

Flange Width below 30mm is optional.

Blades & Spacing

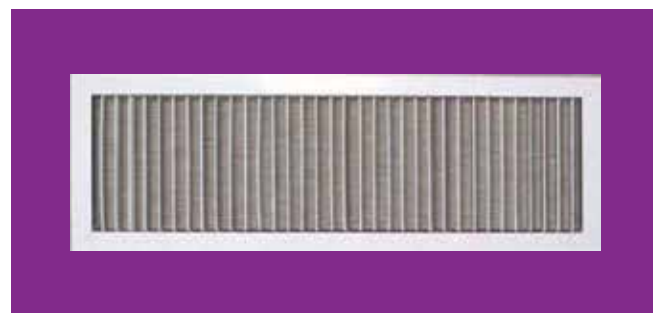
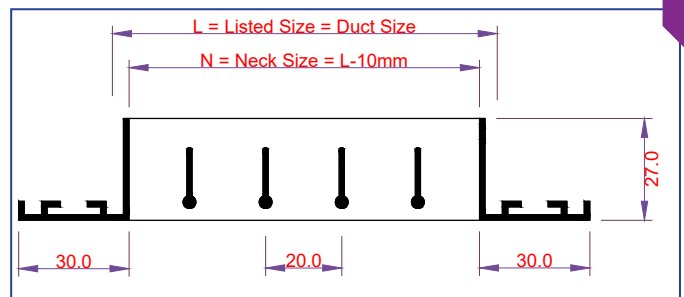
Extruded Aluminium aerofoil blades.
Standard Blade Spacing of 20mm..

Description:

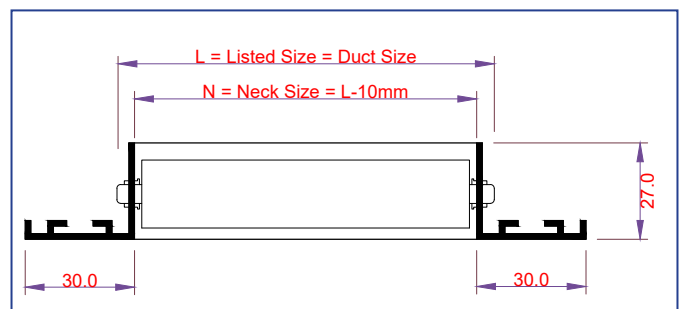
- ❖ The frame and blades are made of high quality extruded aluminium corrosion resistance profile.
- ❖ Frame is separated from the aerofoil deflection blades with help of nylon bushes, assuring quiet, smooth and rattle free operation.
- ❖ Deflection blades can be adjusted manually and individually both in the horizontal and vertical plane to sustain maximum air distribution.



Horizontal Blades



Vertical Blades



Standard Finishes

- ❖ Powder coated finishes as per RAL Colour codes.
- ❖ Also flexible to the customer's requirement

FRESH AIR GRILLE

Fixed Horizontal

Construction Details

Frame

Airwellcare Grilles & Registers are constructed With high quality extruded Aluminium Profiles With 30mm Flange Width.

Flange Width below 30mm is optional

Blades & Spacing

Extruded Aluminium aerofoil blades.
Standard Blade Spacing of 20mm..

Filter frame:

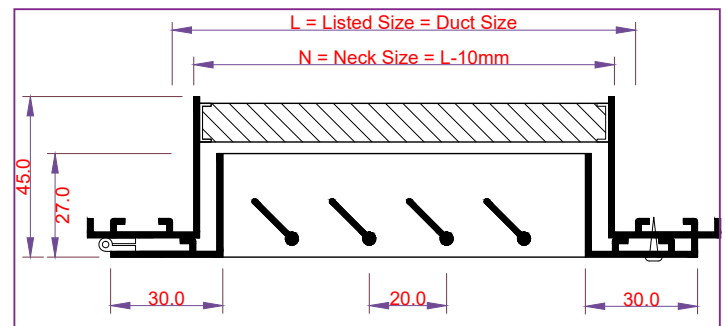
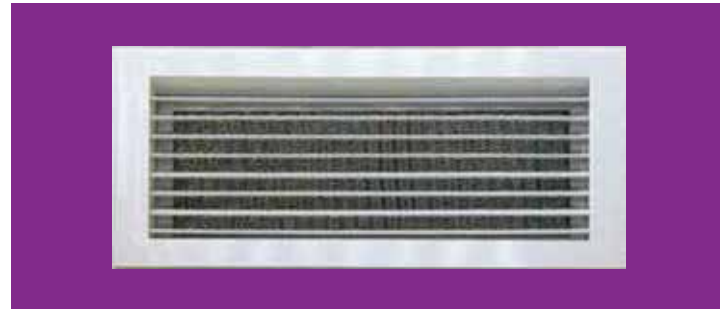
1.0 mm Thick aluminium sheet.

Filter media:

Aluminium mesh.

Description:

- ❖ The frame and blades are of highly quality extruded aluminium profiled construction with the advantage of corrosion resistance and rigidity.
- ❖ Deflection blades are fixed rigidly to the frame at an angle of 45° to the horizontal plane.
- ❖ The removable and washable aluminium filter of ½ inch thick (1 inch is optional) placed at the back of the grille. Filter can be removed easily by opening the grille frame.
- ❖ Grille frame is fixed to the main frame by hinges on one side and screw on the other side.
- ❖ Total assembly will be same as AWC -SDF-H, with removable 12 mm thick aluminium filter.
- ❖ Foam gasket is sealed around the back of the frame as optional to avoid air leakage.



Standard Finishes

- ❖ Powder coated finishes as per RAL Colour codes.
- ❖ Also flexible to the customer's requirement

Model: AWC SLBR-D

LINEAR BAR REGISTER

Double Deflection

Construction Details

Frame

Airwellcare Grilles & Registers are constructed With high quality extruded Aluminium Profiles With 30mm Flange Width.

Flange Width below 30mm is optional

Blade Pitch

Standard blade pitch of 12mm and other pitches are optional.

Face Bars

Horizontal Face bars are of high quality aluminium profiles with 0°, 15° 1 Way & 2 Way rigidly fixed to the frame with 8mm Pipes.

Grille Width

50mm to 350mm Width with 50mm increments as standard.

Opposed Blade Damper

Dampers are constructed from high quality extruded aluminium. All Supply Linear Bar Grilles are fixed with Opposed blade dampers fixed to the frames with a screw operated feature from front side.

Gasket

All Supply Linear Bar Grilles are supplied with foam gasket fixed to the inner flange to prevent leakage of air.

Standard Finishes

- ❖ Powder coated finishes as per RAL Colour codes.
- ❖ Also flexible to the customer's requirement

RETURN LINEAR BAR REGISTER

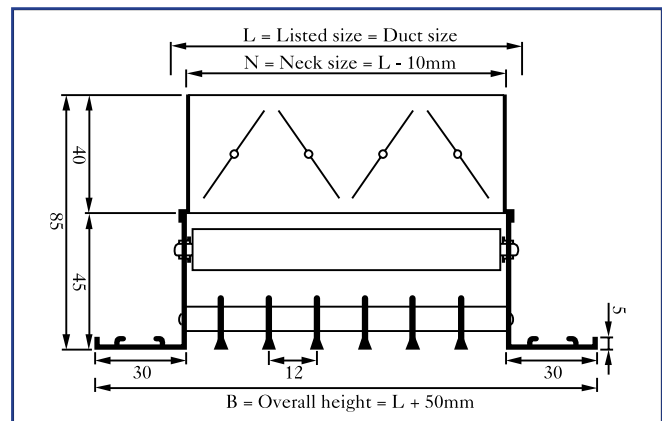
Model AWC RLBR-D

Return Linear Bar Register, Double Deflection

Model AWC RLBR-S

Return Linear Bar Register, Single Deflection

Note: The Design and Construction is same for the above models



Standard Features

- ❖ Horizontal front face blades with deflection options of 0° & 15° Single & Double way
- ❖ Frames & Face bars are of high quality corrosion resistant extruded aluminium profiled construction with the Standard Length construction of 1 Meter.
- ❖ Available from 200mm to 6 Meter. Length of more than 3 meter Linear grilles will be constructed with joining strips & install them with uninterrupted run and to give better appearance.
- ❖ Linear Bar Grilles will be supplied with 'C' Shaped Clamps for concealed fixing.
- ❖ Vertical aluminium aerofoil blades are fixed at the rear side of the frame by Nylon bushes, which can be adjusted manually.

LINEAR BAR REGISTER

Single Deflection

Construction Details

Frame

Airwellcare Grilles & Registers are constructed With high quality extruded Aluminium Profiles With 30mm Flange Width.

Flange Width below 30mm is optional

Blade Pitch

Standard blade pitch of 12mm and other pitches are optional.

Face Bars

Horizontal Face bars are of high quality aluminium profiles with 0°, 15° 1 Way & 2 Way rigidly fixed to the frame with 8mm Pipes.

Grille Width

50mm to 350mm Width with 50mm increments as standard.

Opposed Blade Damper

Dampers are constructed from high quality extruded aluminium. All Supply Linear Bar Grilles are fixed with Opposed blade dampers fixed to the frames with a screw operated feature from front side.

Gasket

All Supply Linear Bar Grilles are supplied with foam gasket fixed to the inner flange to prevent leakage of air.

Standard Finishes

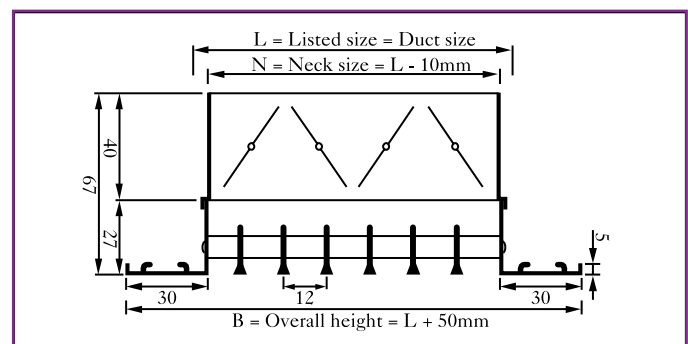
- ❖ Powder coated finishes as per RAL Colour codes.
- ❖ Also flexible to the customer's requirement

RETURN LINEAR BAR REGISTER

Model AWC RLBR-D
Return Linear Bar Register, Double Deflection

Model AWC RLBR-S
Return Linear Bar Register, Single Deflection

Note: The Design and Construction is same for the above models



Standard Features

- ❖ Horizontal front face blades with deflection options of 0° & 15° Single & Double way
- ❖ Frames & Face bars are of high quality corrosion resistant extruded aluminium profiled construction with the Standard Length construction of 1 Meter.
- ❖ Available from 200mm to 6 Meter. Length of more than 3 meter Linear grilles will be constructed with joining strips & install them with uninterrupted run and to give better appearance.
- ❖ Linear Bar Grilles will be supplied with 'C' Shaped Clamps for concealed fixing.
- ❖ Vertical aluminium aerofoil blades are fixed at the rear side of the frame by Nylon bushes, which can be adjusted manually.

Model: AWC LBSG-C

LINEAR BAR GRILLES- CURVED

Construction Details

Frame

Frame is made of high quality Extruded Aluminium comprising 30mm Flange Width as Standard. 12, 16 & 24mm Flange widths are optional.

Blade Pitch

Standard blade pitch of 12mm and other pitches are optional.

Horizontal Face Bars

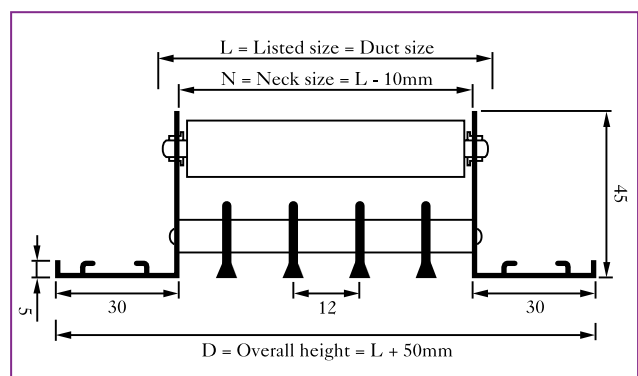
Horizontal Face bars are of high quality aluminium profiles with 0°, 15° 1 Way & 2 Way rigidly fixed to the frame with 8mm Pipes.

Grille Width

50mm to 350mm Width with 50mm increments as standard.

Standard Finishes

- ❖ Powder coated finishes as per RAL Colour codes.
- ❖ Also flexible to the customer's requirement



Standard Features

- ❖ Curved Supply & Return Air Linear Bar Grilles are available with a minimum radius of curvature of 1 Meter.
- ❖ Horizontal front face blades with deflection options of 0° & 15° Single way & Double way
- ❖ Frames & Face bars are of high quality corrosion resistant extruded aluminium profiled construction with the Standard Length construction of 1 Meter.
- ❖ Linear Bar Grilles will be supplied with 'C' Shaped Clamps for concealed fixing.
- ❖ Available from 200mm to 6 Meter. Length of more than 3 meter Linear grilles will be constructed with joining strips & install them with uninterrupted run to give better appearance.



New Doha International Airport (NDIA)
(Back up Approach & Training Centre, Doha Qatar)

STANDARD BAR DEFLECTIONS DETAILS

0° one way	15° one way	15° two way

BLADE CONFIGURATIONS

30° one way	15° two way	15° two way

Model: AWC FG-A

FLOOR GRILL

Construction Details & Features

Frame is made of 4mm heavy Gauge Extruded Corrosion resistant Aluminium Profile with 40mm flange.

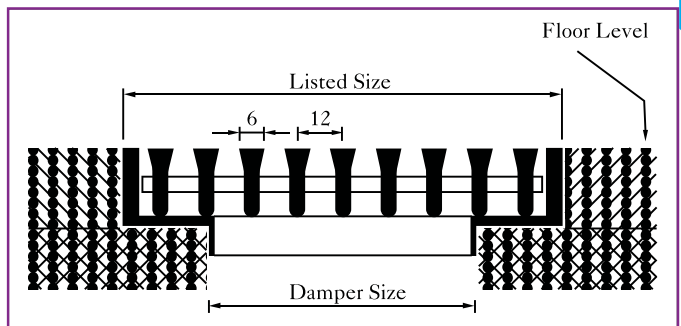
Core, Supports & directional blades are made of high quality extruded aluminium.

Removable Core with Core clips.

Floor Grill structure is aesthetically constructed with face bars positioned rigidly with the frame.

Floor Grilles are supplied in 0° & 15° or 30° one way Deflections.

Face bars are made of high quality aluminium bars of 6mm Thick with 12mm Pitch & supported by heavy duty aluminium round rod.



Standard Finishes

- ❖ Powder coated finishes as per RAL Colour codes.
- ❖ Also flexible to the customer's requirement
- ❖ SS Finish is Optional. (Polished or Brush Finish)

OPTIONAL

Model AWC FG-SS

SS 304 grade Construction with 3mm thick face bars with 12mm standard spacing.

General Guidelines

Airwellcare air outlets have been designed to provide a means of supplying or exhausting air to achieve comfort in the space and providing a level of safety to the occupant. All products are designed and manufactured in accordance with the most recent known industry guidelines and practices. Airwellcare, however, does not intend to imply that the products cannot be wilfully damaged or used to inflict harm to self or others. Airwellcare warrants only the construction and air flow performance of the product being manufactured.

Major Floor Grill Applications

- ❖ Walkways & IT Rooms
- ❖ Churches
- ❖ Galleries
- ❖ Schools & Museums
- ❖ Airports & Hospitals
- ❖ Gymnasiums, Stadiums & Sport Halls

EGG CRATE GRILL

Construction Details & Features

Frame

Frame is made of high quality Extruded Aluminium comprising 30mm Flange Width as Standard. 12, 16 & 24mm Flange widths are optional.

Core

Aluminium Standard Core size of $\frac{1}{2}$ " x $\frac{1}{2}$ " x $\frac{1}{2}$ " (12.5mm x 12.5mm x 12.5mm) which will be fixed rigidly to the frame.

Damper (optional)

Opposed Blade volume damper is made of aluminium with mill finish, provided with Egg Crate Grill as an optional supply.

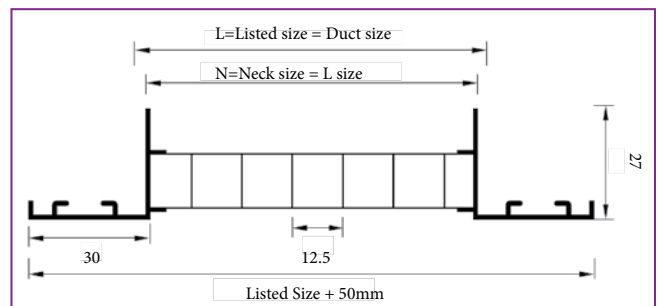
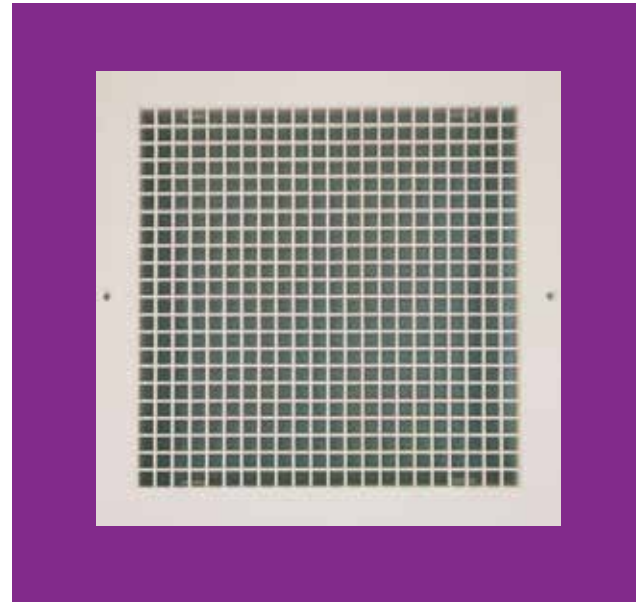
- Black matt finish is also available upon request.

Foam Gasket

Foam Gasket is fixed to the back of frame, preventing the air leakage.

Features

- ❖ 90% Free Area will be an excellent extract terminal thus avoiding greater pressure drop & noise levels.
- ❖ The whole core selection can be removable, avoiding removal of main frame which may result in damages to Walls / ceilings.



Standard Finishes

- ❖ Powder coated finishes as per RAL Colour codes.
- ❖ Also flexible to the customer's requirement



Baker Hughes, Dubai - U.A.E

ENGINEERING & PERFORMANCE DATA - GRILLES & REGISTERS

Model AWC SR-H / SR-V

Double Deflection Registers & Grilles - With 0° & 45° Deflection

CFM	Listed Size in mm x mm	200 x 100		250 x 100		200 x 150		250 x 150		300 x 150	
		200 x 100	200 x 100	200 x 125	250 x 125	250 x 125	300 x 100	300 x 125	400 x 100	350 x 125	450 x 100
M ³ /sec	Area factor	0.0191	0.0093	0.0199	0.0102	0.0214	0.0113	0.0246	0.0142	0.0269	0.0169
	Deflection	0°	45°	0°	45°	0°	45°	0°	45°	0°	45°
100 0.0472	Face vel.	2.47	5.08	2.37	4.63	2.21	4.18	1.92	3.32		
	P _t mm H ₂ O	0.43	1.45	0.35	1.22	0.33	1.04	0.23	0.69		
	Throw in (M)	4.2-5.4	2.7-4.8	3.9-5.5	3.0-4.9	3.9-5.2	3.0-4.9	4.0-5.2	2.7-4.6		
	N.C	15	19	<15	16	<15	<15	<15	<15		
150 0.0708	Face vel.	3.71	7.61	3.56	6.94	3.31	6.27	2.87	4.98	2.63	4.19
	P _t mm H ₂ O	0.99	3.23	0.78	2.72	0.74	2.31	0.53	1.55	0.46	1.07
	Throw in (M)	4.9-6.4	3.6-5.8	4.6-6.1	3.7-5.5	4.3-6.1	3.7-5.2	4.3-6.1	3.4-5.2	4.0-5.8	3.4-4.9
	N.C	18	24	16	21	<15	16	<15	<15	<15	<15
200 0.0945	Face vel.	4.95	10.16	4.75	9.26	4.42	8.36	3.84	6.65	3.51	5.59
	P _t mm H ₂ O	1.77	5.76	1.39	4.88	1.3	4.12	0.94	2.77	0.81	1.88
	Throw in (M)	5.2-7.3	4.3-6.4	5.2-7.0	4.3-6.1	4.9-7.0	3.9-6.1	4.9-6.7	4.0-5.8	4.6-6.7	4.0-5.8
	N.C	21	28	19	25	17	24	15	20	<15	15
250 0.1181	Face vel.	6.18	12.69	5.93	11.58	5.52	10.45	4.80	8.32	4.39	6.988
	P _t mm H ₂ O	2.76	9.02	2.18	7.62	2.0	6.45	1.45	4.32	1.24	2.95
	Throw in (M)	5.8-7.9	4.8-7.0	5.8-7.9	4.9-7.0	5.5-7.6	4.9-6.7	5.4-7.6	4.6-6.7	5.2-7.6	4.6-6.7
	N.C	28	35	27	32	24	31	21	27	17	23
300 0.1417	Face vel.	7.42	15.24	7.12	13.89	6.62	12.54	5.76	9.98	5.27	8.38
	P _t mm H ₂ O	3.96	13.21	3.15	10.92	2.9	9.27	2.1	6.22	1.8	4.24
	Throw in (M)	5.8-8.2	5.2-7.3	5.8-8.2	5.2-7.3	5.8-8.2	5.2-7.3	5.8-8.2	5.2-7.3	5.8-8.2	5.2-7.3
	N.C	34	40	31	38	28	36	26	33	23	30
350 0.1653	Face vel.	8.65	17.77	8.31	16.21	7.72	14.63	6.72	11.64	6.14	9.78
	P _t mm H ₂ O	5.38	17.53	4.32	14.98	3.9	12.57	2.87	8.51	2.46	5.77
	Throw in (M)	7.0-9.8	5.8-8.2	6.7-9.5	5.8-8.2	6.7-9.5	5.4-7.9	6.4-9.2	5.4-7.9	6.4-9.1	5.4-7.9
	N.C	37	45	35	42	32	39	30	37	28	35
400 0.1889	Face vel.			9.49	18.52	8.83	16.72	7.68	13.30	7.022	11.18
	P _t mm H ₂ O			5.61	19.56	5.13	16.51	3.76	11.05	3.2	7.52
	Throw in (M)			7.6-10.4	6.7-9.1	7.3-10.4	6.4-8.8	7.0-10.1	6.1-8.5	6.7-9.8	6.1-8.5
	N.C			38	45	36	42	34	40	32	38
450 0.2125	Face vel.							8.64	14.96	7.899	12.57
	P _t mm H ₂ O							4.72	13.97	4.06	9.53
	Throw in (M)							7.3-10.7	6.7-9.1	7.0-10.4	6.4-8.8
	N.C							39	43	36	42
500 0.2362	Face vel.									8.78	13.97
	P _t mm H ₂ O									5.00	11.74
	Throw in (M)									7.3-10.9	6.7-7.4
	N.C									40	45

- Face velocity is measured in m/sec.
- Total pressure loss is in mm of H₂O & Area factor in square meter.
- Throw (meters) is measured for a terminal velocities of 0.5 & 0.25 m/sec.
- NC based on a room attenuation of 10 dB.

ENGINEERING & PERFORMANCE DATA - GRILLES & REGISTERS

Model AWC SR-H / SR-V

Double Deflection Registers & Grilles - With 0° & 45° Deflection

CFM M ³ /sec	Listed Size in mm x mm	250 x 200		250 x 250		300 x 250		300 x 300		350 x 300	
		350 x 150	400 x 125	300 x 200	400 x 150	450 x 175	500 x 150	350 x 250	450 x 200	400 x 250	500 x 200
	Area factor	0.028	0.0178	0.0324	0.022	0.039	0.0288	0.0469	0.0369	0.0528	0.0422
	Deflection	0°	45°	0°	45°	0°	45°	0°	45°	0°	45°
200	Face vel.	3.38	5.31	2.91	4.30	2.42	3.28	2.0	2.56		
	P _t mm H ₂ O	0.64	1.7	0.36	1.17	0.23	0.71	0.15	0.41		
0.0945	Throw in (M)	4.5-6.7	3.7-5.8	4.5-6.7	3.7-5.5	4.6-6.7	3.4-5.5	4.6-6.7	3.1-5.5		
	N.C	<15	<15	<15	<15	<15	<15	<15	<15		
250	Face vel.	4.22	6.63	3.65	5.37	3.03	4.1	2.52	3.201	2.24	2.79
	P _t mm H ₂ O	0.99	2.64	0.58	1.83	0.36	1.12	0.23	0.61	0.18	0.41
0.1181	Throw in (M)	5.2-7.6	4.6-6.7	5.2-7.6	4.3-6.7	5.2-7.6	4.3-6.4	5.2-7.6	3.9-6.4	5.2-7.3	3.6-6.0
	N.C	15	21	<15	18	<15	<15	<15	<15	<15	<15
300	Face vel.	5.06	7.96	4.37	6.44	3.63	4.92	3.02	3.84	2.68	3.36
	P _t mm H ₂ O	1.42	3.81	0.84	2.62	0.51	1.6	0.33	0.89	0.25	0.58
0.1417	Throw in (M)	5.8-8.2	5.2-7.3	5.8-8.2	5.2-7.3	5.8-8.2	4.8-7.3	5.8-8.2	4.8-7.3	5.5-7.9	4.9-7.0
	N.C	20	27	17	22	<15	19	<15	<15	<15	<15
400	Face vel.	6.75	10.6	5.83	8.59	4.84	6.56	4.03	5.19	3.58	4.47
	P _t mm H ₂ O	2.51	6.73	1.47	4.67	0.91	2.87	0.61	1.6	0.46	1.07
0.1889	Throw in (M)	6.7-9.8	6.4-8.8	6.7-9.8	6.1-8.5	6.7-9.8	5.8-8.5	6.7-9.5	5.8-8.2	6.7-9.5	5.5-8.2
	N.C	29	36	24	27	19	21	<15	17	<15	<15
500	Face vel.	8.44	13.27	7.29	10.74	6.06	8.2	5.036	6.4	4.47	5.59
	P _t mm H ₂ O	3.91	10.54	2.28	7.24	1.45	4.47	0.94	2.46	0.71	1.65
0.2362	Throw in (M)	7.3-10.9	6.7-9.2	7.3-10.9	6.7-9.1	7.6-11.0	6.4-9.1	7.9-11.3	6.4-9.1	7.6-11.3	8.2-9.1
	N.C	35	42	30	32	26	28	18	24	15	19
600	Face vel.			8.75	12.88	7.27	9.84	6.04	7.68	5.37	6.72
	P _t mm H ₂ O			3.3	10.52	2.06	6.45	1.35	3.58	1.04	2.36
0.2834	Throw in (M)			8.5-12.2	7.0-10.0	8.5-12.2	7.0-10.0	8.5-12.2	7.0-10.0	8.5-12.2	6.7-10.1
	N.C			36	39	30	35	25	31	19	24
700	Face vel.					8.48	11.48	7.05	8.96	6.26	7.84
	P _t mm H ₂ O					2.82	8.76	1.83	4.83	1.40	3.25
0.3307	Throw in (M)					9.1-13.1	7.6-10.9	9.1-13.1	7.6-11.0	9.1-13.1	7.6-10.9
	N.C					36	42	32	37	25	31
800	Face vel.							8.05	10.24	7.16	8.95
	P _t mm H ₂ O							2.41	6.35	1.83	4.22
0.3778	Throw in (M)							9.8-14.0	8.2-11.9	9.8-13.7	8.2-11.9
	N.C							36	41	33	37
900	Face vel.							9.06	11.52	8.05	10.07
	P _t mm H ₂ O							3.05	8.0	2.31	5.3
0.425	Throw in (M)							10.0-14.6	8.5-12.5	10.0-14.6	8.4-12.5
	N.C							40	45	36	41

- Face velocity is measured in m/sec.
- Total pressure loss is in mm of H₂O & Area factor in square meter.
- Throw (meters) is measured for a terminal velocities of 0.5 & 0.25 m/sec.
- NC based on a room attenuation of 10 dB.

ENGINEERING & PERFORMANCE DATA - GRILLES & REGISTERS

Model AWC SR-H / SR-V

Double Deflection Registers & Grilles - With 0° & 45° Deflection

CFM M ³ /sec	Listed Size in mm x mm	350 x 350 400 x 300 500 x 250 600 x 200 900 x 150		400 x 400 500 x 300 600 x 250 750 x 200		500 x 350 600 x 300 700 x 250 900 x 200 1200 x 150		450 x 450 500 x 400 800 x 250 1000 x 200	
		Area factor Deflection	0.0633 0°	0.0529 45°	0.0827 0°	0.072 45°	0.0926 0°	0.0853 0°	0.1069 0°
500	Face vel.	3.73	4.47	2.86	3.28	2.46	2.77	2.21	2.43
0.2362	P _t mm H ₂ O	0.48	1.02	0.28	0.45	0.20	0.31	0.15	0.23
	Throw in (M)	7.3-10.9	5.8-9.1	6.7-10.7	5.5-9.1	9.5-10.4	5.2-9.1	6.1-10.1	4.9-8.8
	N.C	<15	16	<15	<15	<15	<15	<15	<15
600	Face vel.	4.47	5.36	3.43	3.94	2.95	3.32	2.65	2.92
0.2834	P _t mm H ₂ O	0.71	1.45	0.41	0.63	0.31	0.43	0.23	0.31
	Throw in (M)	8.2-11.9	6.4-10.1	7.6-11.6	6.4-10.1	7.3-11.3	6.1-10.1	7.0-10.7	6.1-9.8
	N.C	16	20	<15	18	<15	15	<15	<15
700	Face vel.	5.22	6.25	4.0	4.59	3.44	3.88	3.09	3.4
0.3307	P _t mm H ₂ O	0.96	1.98	0.56	0.86	0.41	0.56	0.31	0.43
	Throw in (M)	8.8-12.8	7.3-10.9	8.5-12.5	7.0-11.0	8.5-12.2	7.0-10.9	8.2-11.9	6.7-10.7
	N.C	22	26	19	23	16	20	15	19
800	Face vel.	5.97	7.14	4.57	5.25	3.93	4.43	3.53	3.89
0.3778	P _t mm H ₂ O	1.27	2.59	0.71	1.14	0.53	0.74	0.38	0.56
	Throw in (M)	9.8-13.4	8.2-11.9	9.5-13.1	7.9-10.6	9.5-13.1	7.9-11.6	9.1-12.5	7.6-11.3
	N.C	30	32	26	28	21	25	20	24
900	Face vel.	6.71	8.03	5.14	5.9	4.42	4.98	3.98	4.38
0.425	P _t mm H ₂ O	1.60	3.25	0.91	1.45	0.68	0.94	0.48	0.71
	Throw in (M)	10.1-14.6	8.5-12.5	10.1-14.3	8.5-12.2	10.1-14.0	8.5-12.2	9.8-13.7	8.2-12.2
	N.C	33	36	30	33	25	30	24	29
1000	Face vel.	7.44	8.92	5.69	6.55	4.92	5.55	4.45	4.86
0.472	P _t mm H ₂ O	1.98	4.01	1.11	1.78	0.84	1.17	0.61	0.86
	Throw in (M)	10.7-15	9.1-13	10.4-15	9.1-13.1	10.4-14.6	9.1-13.1	10.1-14.3	9.2-13.1
	N.C	37	40	34	36	30	33	29	32
1100	Face vel.	8.18	9.81	6.25	7.21	5.41	6.11	4.89	5.35
0.519	P _t mm H ₂ O	2.39	4.88	1.35	2.16	1.02	1.42	0.74	1.07
	Throw in (M)	10.9-16	9.8-14	10.7-15	9.8-14	10.7-15.0	9.8-14	10.4-14.9	9.8-14
	N.C	40	45	36	40	33	36	32	35
1200	Face vel.			6.83	7.87	5.91	6.67	5.35	5.84
0.567	P _t mm H ₂ O			1.60	2.54	1.22	1.68	1.0	1.24
	Throw in (M)			11.3-16	10.4-15	11.3-15.9	10.4-14.9	11-15.2	10-14.8
	N.C			38	43	36	40	35	39
1400	Face vel.			7.96	9.18	6.88	7.77	6.23	6.81
0.661	P _t mm H ₂ O			2.18	3.51	1.65	2.28	1.19	1.73
	Throw in (M)			12.2-17	11-15.5	12.2-16.8	10.9-15.2	11.6-16.2	10.4-15
	N.C			44	49	41	44	40	43

- Face velocity is measured in m/sec.
- Total pressure loss is in mm of H₂O & Area factor in square meter.
- Throw (meters) is measured for a terminal velocities of 0.5 & 0.25 m/sec.
- NC based on a room attenuation of 10 dB.

ENGINEERING & PERFORMANCE DATA - GRILLES & REGISTERS

Model AWC SR-H / SR-V

Double Deflection Registers & Grilles - With 0° & 45° Deflection

CFM M ³ /sec	Listed Size in mm x mm	600 x 400 900 x 250 800 x 300 1200 x 200		800 x 350 900 x 300 1100 x 250 1400 x 200		600 x 600 900 x 400 1000 x 350 1200 x 300		750 x 600 900 x 500 1000 x 450 1500 x 300 1200 x 375		800 x 750 900 x 700 1000 x 600 1200 x 500			
		Area factor		0.1352	0.1	0.162	0.1159	0.216	0.162	0.27	0.216	0.354	0.288
		Deflection		0°	45°	0°	45°	0°	45°	0°	45°	0°	45°
1100 0.519	Face vel	3.84	5.19	3.20	4.48	2.4	3.2	1.92	2.4				
	P _t mm H ₂ O	0.64	0.98	0.59	0.84	0.52	0.76	0.42	0.62				
	Throw in (M)	9.8-14.3	9.2-13.2	9.2-13.6	8.6-12.8	8.8-13.0	8.1-11.3	7.0-9.1	6.2-8.3				
	N.C	30	33	28	29	25	27	20	24				
1200 0.567	Face vel	4.19	5.67	3.5	4.89	2.63	3.5	2.1	2.63	1.6	1.97		
	P _t mm H ₂ O	0.87	1.09	0.69	0.92	0.58	0.81	0.48	0.71	0.38	0.51		
	Throw in (M)	10.3-14.8	9.8-14.0	9.7-14.3	9.1-13.2	9.3-13.8	8.4-11.9	7.5-10.8	6.8-9.4	6.3-9.2	5.7-8.1		
	N.C	32	35	30	32	27	29	24	26	20	22		
1400 0.661	Face vel	4.89	6.61	4.08	5.7	3.06	4.08	2.45	3.06	1.87	2.29		
	P _t mm H ₂ O	0.93	1.51	0.76	1.21	0.63	0.98	0.51	0.79	0.43	0.58		
	Throw in (M)	10.8-15.4	10.2-14.6	10.1-15.0	9.7-13.8	9.7-14.3	8.8-11.3	8.1-11.3	7.3-10.1	6.8-10.1	6.1-8.8		
	N.C	35	38	33	35	30	32	27	29	23	25		
1600 0.756	Face vel	5.59	7.56	4.67	6.52	3.5	4.82	2.8	3.5	2.13	2.63		
	P _t mm H ₂ O	1.03	1.82	0.84	1.43	0.71	1.12	0.63	0.91	0.51	0.64		
	Throw in (M)	11.5-16.9	10.8-15.1	10.6-15.4	10.1-14.5	10.1-14.8	9.3-12.1	8.8-12.1	7.9-10.7	7.3-10.9	6.7-9.2		
	N.C	38	40	36	37	33	34	29	31	25	28		
1800 0.85	Face vel	6.29	8.5	5.25	7.33	3.94	5.32	3.15	3.94	2.4	2.95		
	P _t mm H ₂ O	1.32	2.24	0.97	1.73	0.82	1.34	0.72	1.13	0.58	0.78		
	Throw in (M)	12.6-18.2	11.4-17.3	11.8-16.7	10.7-15.3	10.9-16.1	9.8-14.1	10.1-14.2	8.2-12.2	7.9-11.6	7.1-9.8		
	N.C	41	44	39	41	36	37	31	33	28	31		
2000 0.945	Face vel	6.99	9.78	5.83	8.15	4.38	5.83	3.5	4.38	2.7	3.28		
	P _t mm H ₂ O	1.61	2.53	1.03	1.92	0.88	1.52	0.78	1.23	0.61	0.83		
	Throw in (M)	13.8-19.7	12.4-18.6	13.2-18.1	11.6-16.5	12.1-17.3	10.3-14.8	10.7-15.1	8.8-13.1	8.2-11.8	7.4-10.4		
	N.C	44	47	41	43	39	41	33	36	28	32		
2200 1.039	Face vel			6.41	8.96	4.81	6.41	3.85	4.81	2.94	3.61		
	P _t mm H ₂ O			1.16	2.42	0.95	1.82	0.83	1.45	0.72	0.93		
	Throw in (M)			14.3-19.5	12.4-17.7	12.8-18.1	10.9-15.7	11.2-16.4	9.3-13.8	8.9-13.0	8.1-11.3		
	N.C			44	47	41	44	35	39	30	33		
2400 1.134	Face vel					5.25	7.0	4.2	5.25	3.2	3.94		
	P _t mm H ₂ O					1.13	2.04	0.93	1.63	0.81	1.03		
	Throw in (M)					13.7-19.2	11.4-16.4	12.2-17.3	9.9-14.7	9.5-13.8	8.7-12.1		
	N.C					43	46	37	42	32	35		
2600 1.228	Face vel					5.69	7.58	4.55	5.69	3.47	4.26		
	P _t mm H ₂ O					1.43	2.43	1.07	1.93	0.92	1.32		
	Throw in (M)					14.4-21.3	12.1-17.6	13.1-18.4	10.7-15.4	10.7-15.7	9.3-13.2		
	N.C					45	48	40	44	33	37		

- Face velocity is measured in m/sec.
- Total pressure loss is in mm of H₂O & Area factor in square meter.
- Throw (meters) is measured for a terminal velocities of 0.5 & 0.25 m/sec.
- NC based on a room attenuation of 10 dB.

ENGINEERING & PERFORMANCE DATA - GRILLES & REGISTERS

Model AWC SDF-H / FAG-FH

Single Deflection Register & Grilles - 45° Deflection (Fixed Horizontal)

Listed size in mm x mm	Face vel m/sec.	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0
	P _s mm H ₂ O	0.91	1.63	2.54	3.68	4.97	6.5	8.33	10.16
250x100 / 200x125 150x150	CFM	60	80	100	120	140	160	180	200
	M ³ /sec	0.0283	0.0378	0.0472	0.0567	0.0661	0.0756	0.085	0.0945
	NC	<15	16	24	27	31	36	41	46
	CFM	81	108	135	162	189	216	243	270
200x150 / 250x125 300x100	M ³ /sec	0.0383	0.051	0.0638	0.765	0.0893	0.102	0.1148	0.1275
	NC	<15	16	24	27	31	36	41	46
250x150 / 300x125 400x100	CFM	102	136	170	204	238	272	306	340
	M ³ /sec	0.0482	0.0642	0.0803	0.0964	0.1124	0.1285	0.1445	0.1606
	NC	<15	15	24	27	31	36	41	46
	CFM	120	160	200	240	280	320	360	400
300x150 / 350x125 450x100	M ³ /sec	0.0567	0.0756	0.0945	0.1134	0.1322	0.1512	0.17	0.1889
	NC	<15	15	25	28	31	36	41	47
250x200 / 350x150 400x125 / 500x100	CFM	141	188	235	282	329	376	423	470
	M ³ /sec	0.0666	0.088	0.1109	0.1332	0.1554	0.178	0.199	0.222
	NC	<15	16	24	27	31	35	40	47
	CFM	162	216	270	324	378	432	486	540
250x250 / 300x200 400x150 / 500x125 600x100	M ³ /sec	0.0765	0.102	0.1275	0.153	0.1785	0.204	0.2295	0.255
	NC	<15	16	24	27	31	35	42	47
300x250 / 450x150 500x150 / 600x125 750x100	CFM	180	270	300	360	420	480	540	600
	M ³ /sec	0.085	0.1133	0.142	0.17	0.198	0.2267	0.255	0.2833
	NC	<15	17	23	27	31	35	40	46
	CFM	240	320	400	480	560	640	720	800
300x300 / 350x250 450x200 / 600x150	M ³ /sec	0.1133	0.151	0.1889	0.2267	0.2645	0.302	0.3401	0.3778
	NC	<15	18	23	27	31	35	40	47
350x300 / 400x250 500x200 / 750x150	CFM	300	400	500	600	700	800	900	1000
	M ³ /sec	0.1416	0.1889	0.236	0.283	0.331	0.3778	0.425	0.4723
	NC	<15	19	23	27	32	36	40	48
	CFM	360	480	600	720	840	960	1080	1200
350x350 / 400x300 500x250 / 600x200 900x150	M ³ /sec	0.17	0.2267	0.283	0.34	0.3967	0.453	0.51	0.5667
	NC	<15	21	24	27	32	36	40	48
400x350 / 550x250 700x200	CFM	420	560	700	840	980	1120	1260	1400
	M ³ /sec	0.198	0.264	0.331	0.397	0.463	0.529	0.595	0.661
	NC	<15	21	24	28	33	37	41	49
	CFM	480	640	800	960	1120	1280	1440	1600
400x400 / 500x300 600x250 / 800x200	M ³ /sec	0.2267	0.3023	0.3778	0.453	0.529	0.6046	0.68	0.7556
	NC	16	22	25	29	33	38	42	49
500x350 / 600x300 700x250 / 900x200 1000x150	CFM	540	720	900	1080	1260	1440	1620	1800
	M ³ /sec	0.255	0.3401	0.4251	0.51	0.51	0.6801	0.765	0.85
	NC	17	22	25	29	34	42	43	50
	CFM	600	800	1000	1200	1400	1600	1800	2000
450x450 / 500x400 750x250 1000x200	M ³ /sec	0.2834	0.3778	0.4723	0.5668	0.6612	0.7556	0.85	0.9446
	NC	18	23	26	30	35	43	41	50
500x500 / 550x450 750x300 / 900x250 1000x200	CFM	660	880	1100	1320	1540	1760	1980	2200
	M ³ /sec	0.3117	0.4156	0.5195	0.6234	0.7273	0.8313	0.935	1.039
	NC	18	23	27	31	36	40	44	52

- Face velocity is measured in m/sec.
- P_s: Static pressure loss in mm of H₂O
- NC based on a room attenuation of 10 dB.

ENGINEERING & PERFORMANCE DATA - GRILLES & REGISTERS

Model AWC SDA-H/ SDA-V

Single Deflection Registers & Grilles - 0° Deflection

Listed size in mm x mm	Face vel m/sec.	2.5	3.0	3.5	4.0	4.5	5.00	5.50	6.00
	P _s mm H ₂ O	1.7	2.46	3.35	4.37	5.59	6.86	8.38	9.9
250x100 / 200x125 150x150	CFM	150	180	210	240	270	300	330	360
	M ³ /sec	0.071	0.085	0.099	0.113	0.127	0.142	0.156	0.17
	NC	<15	19	22	25	29	33	36	38
200x150 / 250x125 300x100	CFM	180	210	240	280	320	350	390	420
	M ³ /sec	0.085	0.099	0.113	0.132	0.151	0.165	0.184	0.198
	NC	<15	18	22	26	29	33	35	37
250x150 / 300x125 400x100	CFM	220	260	310	350	400	440	490	530
	M ³ /sec	0.104	0.123	0.146	0.165	0.189	0.208	0.231	0.250
	NC	16	20	25	28	31	35	38	40
300x150 / 350x125 450x100	CFM	240	290	340	390	440	490	540	590
	M ³ /sec	0.113	0.137	0.161	0.184	0.208	0.231	0.255	0.279
	NC	15	20	24	27	30	34	37	40
250x200 / 350x150 400x125 / 500x100	CFM	270	320	370	420	480	530	590	640
	M ³ /sec	0.127	0.151	0.165	0.198	0.227	0.25	0.279	0.302
	NC	<15	17	21	24	28	31	35	38
250x250 / 300x200 400x150 / 500x125 600x100	CFM	310	370	430	490	550	610	680	740
	M ³ /sec	0.146	0.165	0.203	0.231	0.259	0.288	0.321	0.349
	NC	15	19	23	26	30	34	36	39
300x250 / 450x150 500x150 / 600x125 750x100	CFM	360	440	510	580	660	730	810	800
	M ³ /sec	0.17	0.208	0.241	0.274	0.312	0.345	0.382	0.416
	NC	15	20	24	27	31	34	37	39
300x300 / 350x250 450x200 / 600x150	CFM	420	500	590	670	750	840	930	1020
	M ³ /sec	0.198	0.236	0.279	0.316	0.354	0.397	0.439	0.482
	NC	<15	15	23	27	30	34	37	40
350x300 / 400x250 500x200 / 750x150	CFM	450	540	630	720	810	900	1000	1090
	M ³ /sec	0.213	0.255	0.297	0.34	0.382	0.425	0.472	0.514
	NC	<15	16	21	25	29	33	37	40
350x350 / 400x300 500x250 / 600x200 900x150	CFM	510	620	720	820	930	1030	1140	1240
	M ³ /sec	0.241	0.293	0.340	0.387	0.439	0.486	0.538	0.586
	NC	15	20	24	29	32	37	40	43
400x400 / 500x300 600x250 / 800x200	CFM	580	700	820	940	1050	1170	1290	1400
	M ³ /sec	0.274	0.331	0.387	0.444	0.496	0.553	0.609	0.661
	NC	15	20	25	30	34	38	41	44
500x350/600x300 700x250/900x200 1000x150	CFM	660	800	930	1060	1200	1330	1470	1600
	M ³ /sec	0.312	0.378	0.439	0.501	0.567	0.628	0.694	0.756
	NC	16	22	26	32	35	39	42	45
450x450 / 500x400 750x250 1000x200	CFM	700	840	980	1120	1270	1400	1550	1690
	M ³ /sec	0.331	0.397	0.463	0.529	0.599	0.661	0.732	0.798
	NC	16	21	25	30	33	35	39	43
500x500 / 550x450 750x300 / 900x250 1000x200	CFM	800	970	1130	1280	1440	1600	1770	1930
	M ³ /sec	0.378	0.458	0.533	0.605	0.68	0.756	0.836	0.912
	NC	18	23	27	33	38	40	43	45

- Face velocity is measured in m/sec.
- P_s: Static pressure loss in mm of H₂O
- NC based on a room attenuation of 10 dB.

ENGINEERING & PERFORMANCE DATA - GRILLES & REGISTERS

Model AWC RAR-SD / RAG-DD

Single Deflection Registers & Grilles - 45° Deflection

Listed size in mm x mm	Face vel m/sec.	2.75	3.25	4.0	4.5	5.0	5.5	6.0	6.5
	P _s mm H ₂ O	2.16	3.05	4.32	5.59	7.11	8.89	10.92	12.95
250x100 / 200x125 150x150	CFM	150	180	210	240	270	300	330	360
	M ³ /sec	0.071	0.085	0.099	0.113	0.127	0.142	0.156	0.17
	NC	18	22	25	28	32	36	39	41
200x150 / 250x125 300x100	CFM	180	210	240	280	320	350	390	420
	M ³ /sec	0.085	0.099	0.113	0.132	0.151	0.165	0.184	0.198
	NC	17	21	25	29	32	36	38	40
250x150 / 300x125 400x100	CFM	220	260	310	350	400	440	490	530
	M ³ /sec	0.104	0.123	0.146	0.165	0.189	0.208	0.231	0.250
	NC	19	23	28	31	34	38	41	43
300x150 / 350x125 450x100	CFM	240	290	340	390	440	490	540	590
	M ³ /sec	0.113	0.137	0.161	0.184	0.208	0.231	0.255	0.279
	NC	18	23	27	30	33	37	40	43
250x200 / 350x150 400x125 / 500x100	CFM	270	320	370	420	480	530	590	640
	M ³ /sec	0.127	0.151	0.165	0.198	0.227	0.25	0.279	0.302
	NC	16	20	24	27	31	34	38	41
250x250 / 300x200 400x150 / 500x125 600x100	CFM	310	370	430	490	550	610	680	740
	M ³ /sec	0.146	0.165	0.203	0.231	0.259	0.288	0.321	0.349
	NC	18	22	26	29	33	37	39	42
300x250 / 450x150 500x150 / 600x125 750x100	CFM	360	440	510	580	660	730	810	800
	M ³ /sec	0.17	0.208	0.241	0.274	0.312	0.345	0.382	0.416
	NC	18	23	27	30	34	37	40	42
300x300 / 350x250 450x200 / 600x150	CFM	420	500	590	670	750	840	930	1020
	M ³ /sec	0.198	0.236	0.279	0.316	0.354	0.397	0.439	0.482
	NC	<15	18	26	30	33	37	40	43
350x300 / 400x250 500x200 / 750x150	CFM	450	540	630	720	810	900	1000	1090
	M ³ /sec	0.213	0.255	0.297	0.34	0.382	0.425	0.472	0.514
	NC	15	19	24	28	32	36	40	43
350x350 / 400x300 500x250 / 600x200 900x150	CFM	510	620	720	820	930	1030	1140	1240
	M ³ /sec	0.241	0.293	0.340	0.387	0.439	0.486	0.538	0.586
	NC	18	23	27	32	35	40	43	46
400x400 / 500x300 600x250 / 800x200	CFM	580	700	820	940	1050	1170	1290	1400
	M ³ /sec	0.274	0.331	0.387	0.444	0.496	0.553	0.609	0.661
	NC	15	20	25	30	37	41	44	47
500x350/600x300 700x250/900x200 1000x150	CFM	660	800	930	1060	1200	1330	1470	1600
	M ³ /sec	0.312	0.378	0.439	0.501	0.567	0.628	0.694	0.756
	NC	19	25	29	35	38	42	45	48
450x450 / 500x400 750x250 1000x200	CFM	700	840	980	1120	1270	1400	1550	1690
	M ³ /sec	0.331	0.397	0.463	0.529	0.599	0.661	0.732	0.798
	NC	19	24	28	33	36	38	42	46
500x500 / 550x450 750x300 / 900x250 1000x200	CFM	800	970	1130	1280	1440	1600	1770	1930
	M ³ /sec	0.378	0.458	0.533	0.605	0.68	0.756	0.836	0.912
	NC	21	26	30	36	41	43	46	48

- Face velocity is measured in m/sec.
- P_s: Static pressure loss in mm of H₂O
- NC based on a room attenuation of 10 dB.

ENGINEERING & PERFORMANCE DATA - LINEAR BAR REGISTER

Model AWC SLBR-D / SLBR-S/RLBAR -D/RLBR-S/ LBSG-C (15° -2 Way 12mm Spacing)

Nominal Width mm							
50	Cfm	332	417	500	585	667	750
	M ³ /sec.	0.157	0.197	0.236	0.276	0.315	0.354
	P _s in mm H ₂ O	0.48	0.74	1.07	1.47	1.91	2.41
	NC	<15	18	26	32	36	42
100	Cfm	417	500	585	667	750	833
	M ³ /sec.	0.197	0.236	0.276	0.315	0.354	0.393
	P _s in mm H ₂ O	0.51	0.71	0.97	1.27	1.6	1.98
	NC	15	20	27	32	35	40
150	Cfm	500	585	667	750	833	1000
	M ³ /sec.	0.236	0.276	0.315	0.354	0.393	0.472
	P _s in mm H ₂ O	0.51	0.69	0.89	1.14	1.40	2.01
	NC	17	22	28	32	34	38
200	Cfm	585	667	750	833	1000	1167
	M ³ /sec.	0.276	0.315	0.354	0.393	0.472	0.551
	P _s in mm H ₂ O	0.48	0.64	0.81	0.99	1.42	1.91
	NC	16	23	26	32	35	40
250	Cfm	667	750	833	1000	1167	1332
	M ³ /sec.	0.315	0.354	0.393	0.472	0.551	0.629
	P _s in mm H ₂ O	0.48	0.61	0.74	1.07	1.45	1.9
	NC	19	23	25	31	35	40
300	Cfm	750	833	1000	1167	1333	1500
	M ³ /sec.	0.354	0.393	0.472	0.551	0.629	0.708
	P _s in mm H ₂ O	0.5	0.64	0.77	1.13	1.52	2.0
	NC	20	25	27	31	38	44

Model AWC SLBR-D / SLBR-S/RLBAR -D/RLBR-S/ LBSG-C 15° -1 Way 12mm Spacing

Nominal Width mm							
50	Cfm	332	417	500	585	667	750
	M ³ /sec.	0.157	0.197	0.236	0.276	0.315	0.354
	P _s in mm H ₂ O	0.46	0.72	1.03	1.42	1.88	2.32
	NC	<15	<18	25	31	31	40
100	Cfm	417	500	585	667	750	833
	M ³ /sec.	0.197	0.236	0.276	0.315	0.354	0.393
	P _s in mm H ₂ O	0.48	0.69	0.93	1.20	1.55	1.88
	NC	<15	19	24	31	34	38
150	Cfm	500	585	667	750	833	1000
	M ³ /sec.	0.236	0.276	0.315	0.354	0.393	0.472
	P _s in mm H ₂ O	0.48	0.67	0.86	1.10	1.34	1.92
	NC	15	20	27	31	31	37
200	Cfm	585	667	750	833	1000	1167
	M ³ /sec.	0.276	0.315	0.354	0.393	0.472	0.551
	P _s in mm H ₂ O	0.45	0.64	0.78	0.99	1.37	1.85
	NC	17	23	25	30	34	38
250	Cfm	667	750	833	1000	1167	1332
	M ³ /sec.	0.315	0.354	0.393	0.472	0.551	0.629
	P _s in mm H ₂ O	0.45	0.59	0.71	1.02	1.36	1.79
	NC	19	22	24	30	33	38
300	Cfm	750	833	1000	1167	1332	1500
	M ³ /sec.	0.354	0.393	0.472	0.551	0.629	0.708
	P _s in mm H ₂ O	0.48	0.6	0.74	1.05	1.45	1.8
	NC	19	23	25	30	37	42

- Data based on one meter unit length of the grille.
- P_s: Static pressure loss is in mm of H₂O.
- NC based on a room attenuation of 10 dB.

ENGINEERING & PERFORMANCE DATA - LINEAR BAR REGISTER

Model AWC SLBR-D / SLBR-S/RLBAR -D/RLBR-S/ LBSG-C (15° -2 Way 12mm Spacing)

Nominal Width mm							
50	Cfm	332	417	500	585	667	750
	M ³ /sec.	0.157	0.197	0.236	0.276	0.315	0.354
	P _s in mm H ₂ O	0.43	0.69	0.99	1.37	1.83	2.23
	NC	<15	17	24	30	33	38
100	Cfm	417	500	585	667	750	833
	M ³ /sec.	0.197	0.236	0.276	0.315	0.354	0.393
	P _s in mm H ₂ O	0.45	0.66	0.89	1.14	1.48	1.78
	NC	<15	18	23	31	33	36
150	Cfm	500	585	667	750	833	1000
	M ³ /sec.	0.236	0.276	0.315	0.354	0.393	0.472
	P _s in mm H ₂ O	0.45	0.64	0.81	1.04	1.27	1.83
	NC	15	17	26	28	30	36
200	Cfm	585	667	750	833	1000	1167
	M ³ /sec.	0.276	0.315	0.354	0.393	0.472	0.551
	P _s in mm H ₂ O	0.43	0.64	0.65	0.91	1.4	1.8
	NC	17	22	24	27	33	37
250	Cfm	667	750	833	1000	1167	1332
	M ³ /sec.	0.315	0.354	0.393	0.472	0.551	0.629
	P _s in mm H ₂ O	0.43	0.56	0.66	0.94	1.27	1.67
	NC	19	21	23	29	32	36
300	Cfm	750	833	1000	1167	1330	1500
	M ³ /sec.	0.354	0.393	0.472	0.551	0.629	0.708
	P _s in mm H ₂ O	0.45	0.58	0.69	0.98	1.32	1.7
	NC	19	22	24	28	36	40

- Data based on one meter unit length of the grille.
- P_s: Static pressure loss is in mm of H₂O.
- NC based on a room attenuation of 10 dB.

ENGINEERING & PERFORMANCE DATA - FLOOR GRILLES

Model AWC FG-A/FG-SS (Light & Heavy Duty)

Width in mm A _i in m ²	Face Velocity in m/sec.	2.0	2.5	3.0	3.5	4.0	4.5	5.0
50	Cfm	89	111	133	156	178	200	222
	M ³ /sec.	0.042	0.053	0.063	0.074	0.084	0.095	0.105
	P _s in mm H ₂ O	0.23	0.31	0.52	0.68	0.83	1.18	1.48
	Throw in m	0.5-0.7	0.6-1.1	0.7-1.3	0.9-2.1	1.3-2.5	1.6-3.1	2.2-3.8
	NC	<20	20	22	25	27	29	30
100	Cfm	225	281	337	393	449	505	561
	M ³ /sec.	0.106	0.133	0.159	0.186	0.212	0.239	0.265
	P _s in mm H ₂ O	0.23	0.31	0.52	0.68	0.83	1.18	1.48
	Throw in m	0.7-1.3	1.3-2.8	2.3-4.1	2.5-4.8	2.8-5.4	3.5-6.4	4.1-7.3
	NC	<20	20	25	28	30	32	35
150	Cfm	347	434	521	608	695	782	868
	M ³ /sec.	0.164	0.205	0.246	0.287	0.328	0.369	0.41
	P _s in mm H ₂ O	0.23	0.31	0.52	0.68	0.83	1.18	1.48
	Throw in m	0.8-1.6	1.5-3.1	2.4-4.5	2.7-5.1	3.3-6.1	4.1-6.9	4.4-7.8
	NC	<20	20	25	27	30	33	35
200	Cfm	483	604	724	845	966	1087	1207
	M ³ /sec.	0.228	0.285	0.342	0.399	0.456	0.513	0.57
	P _s in mm H ₂ O	0.23	0.31	0.52	0.68	0.83	1.18	1.48
	Throw in m	0.9-1.8	1.7-3.7	2.5-4.8	3.1-5.4	3.5-6.7	4.4-7.3	4.9-8.2
	NC	<20	20	25	28	31	33	35
250	Cfm	602	752	902	1053	1203	1353	1504
	M ³ /sec.	0.284	0.355	0.426	0.497	0.568	0.639	0.71
	P _s in mm H ₂ O	0.23	0.31	0.52	0.68	0.83	1.18	1.48
	Throw in m	1.1-2.1	1.8-4.1	2.7-4.9	3.2-5.7	3.7-6.9	4.5-7.2	5.1-8.3
	NC	<20	20	25	27	30	32	35
300	Cfm	724	905	1087	1268	1449	1630	1811
	M ³ /sec.	0.342	0.428	0.513	0.598	0.684	0.77	0.855
	P _s in mm H ₂ O	0.23	0.31	0.52	0.68	0.83	1.18	1.48
	Throw in m	1.2-2.2	1.8-4.2	2.6-4.9	3.0-5.5	3.6-6.8	4.5-7.1	4.9-8.2
	NC	<20	20	25	28	31	33	35

- Data based on one meter unit length of the grille with damper in full open position.
- Face velocity is measured in m/sec.
- P_s - Static pressure loss is in mm of H₂O.
- Throw (meters) is measured for a terminal velocities of 0.5 & 0.25 m/sec.
- Noise criteria (NC) based on a room attenuation of 10 dB.

ENGINEERING & PERFORMANCE DATA - EGG CRATE GRILLE

Model AWC ECG-1

Core velocity In m/Sec.	1.25	1.	2	2.	3	3.	4	4.	5
Pressure drop In mm H ₂ O.	0.254	0.363	0.635	1.016	1.524	2.032	2.54	3.302	4.064
Listed size mm x mm	Air flow in m ³								
150 x 150	0.029	0.035	0.047	0.059	0.071	0.082	0.094	0.106	0.118
225 x 225	0.063	0.076	0.101	0.127	0.152	0.177	0.203	0.228	0.253
300 x 300	0.115	0.136	0.183	0.229	0.275	0.321	0.367	0.412	0.458
375 x 375	0.179	0.212	0.285	0.357	0.428	0.499	0.571	0.642	0.713
450 x 450	0.257	0.306	0.412	0.515	0.618	0.721	0.824	0.927	1.029
525 x 525	0.351	0.417	0.561	0.701	0.842	0.982	1.122	1.263	1.403
600 x 600	0.458	0.596	0.733	0.916	1.099	1.283	1.466	1.649	1.833

- Air flow data for non standard sizes can be interpolated from the above data.

Application Guidelines

These application guidelines are designed to enhance your ability to use the performance data in this catalog to select an air outlet that will create an air pattern in the occupied space conducive to the comfort of the occupant.

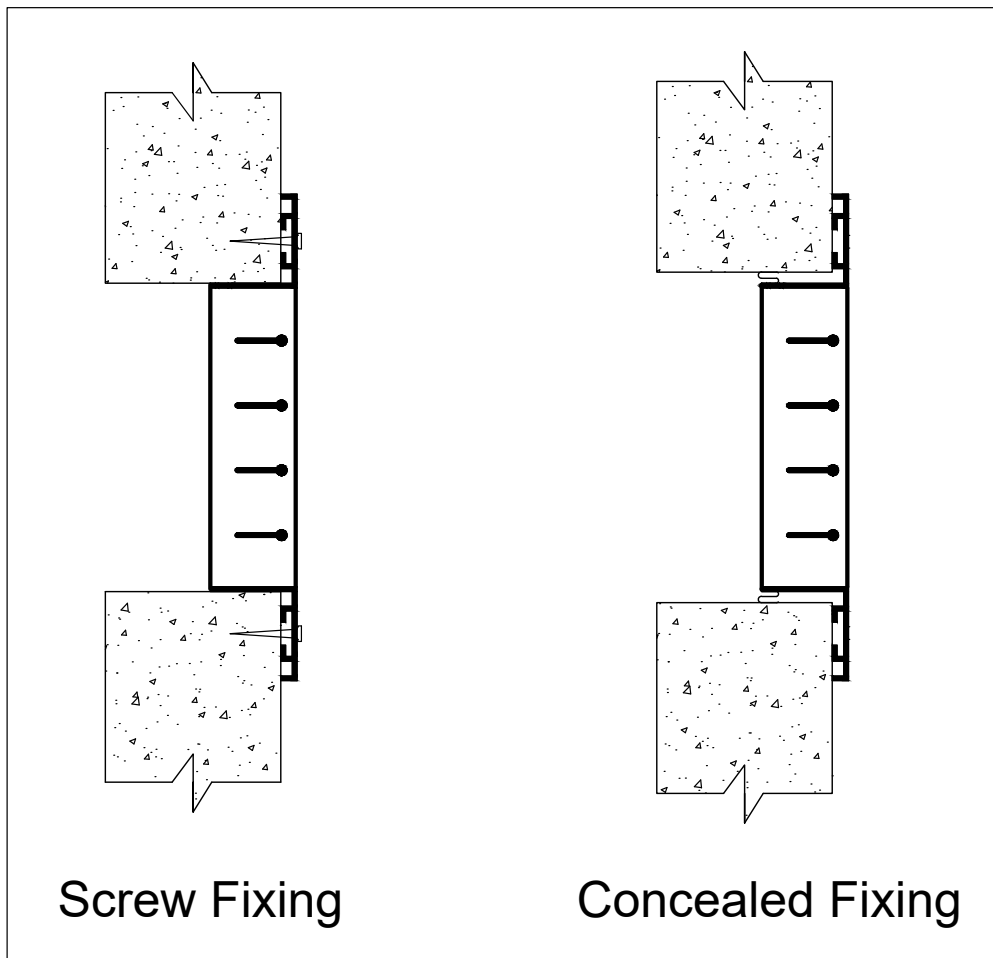
Single Deflection Supply

A grille or register consisting of a single set of adjustable blades that controls the air pattern in only one direction, depending on blade orientation. Horizontal blades control rise and drop of the air stream. This orientation would be used, for example, to prevent unwanted drop in a free space (no ceiling) application or to blow warm air down in a high sidewall application. Vertically oriented blades control the spread of the air pattern and would be used where throw, not drop, is a prime concern. These would be the most economical type of outlet.

Double Deflection Supply

A grille or register consisting of two sets of adjustable blades oriented perpendicular to each other to allow control of the air pattern in both horizontal and vertical planes. While both sets of blades have an effect on the air pattern, the front or outward most set has the most influence. The front blades should be horizontal if control of rise and drop is primary (i.e. free space or high sidewall) and vertical if spread and throw are the largest concerns. Double deflection outlets are the most flexible type of grille or register.

INSTALLATION DETAILS



MODEL REFERENCES

Quick Selection Chart for Model References

PRODUCT	MODEL	ITEM DESCRIPTION	REMARKS
SUPPLY REGISTER	AWC SR-H	DOUBLE DEFLECTION	FRONT HORIZONTAL BLADES
SUPPLY REGISTER	AWC SR-V	DOUBLE DEFLECTION	FRONT VERTICAL BLADES
GRILLES (FIXED)	AWC SDF-H	SINGLE DEFLECTION	FIXED HORIZONTAL BLADES
GRILLES (ADJUSTABLE)	AWC SDA - H/ SDA-V	SINGLE DEFLECTION	ADJUSTABLE HORIZONTAL BLADES
FRESH AIR GRILE	AWC FAG-FH	FIXED HORIZONTAL	WITH OR WITHOUT FILTER
LINEAR BAR REGISTER	AWC SLBR -D	DOUBLE DEFLECTION	HORIZONTAL FACE BARS
LINEAR BAR REGISTER	AWC SLBR-S	SINGLE DEFLECTION	HORIZONTAL FACE BARS
LINEAR BAR GRILLES	AWC LBSG-C	HORIZONTAL FACE BARS	
FLOOR GRILL	AWC FG-A	HORIZONTAL FACE BAR	WITH ALUMINIUM & STAINLESS STEEL CONSTRUCTION
ECG CRATE GRILLE	AWC ECG-1	WITH DAMPER OPTIONAL	



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