ALSHARQA

FLOW BAR DIFFUSERS

AIR OUTLETS
TECHNICAL CATALOGUE

Alsharqa
Air Conditioning and Industies
المصرية الخليجية لأعمال التكييف - الشارقة
egyptian gulf for the work
of air conditioning

www.alsharqa.com

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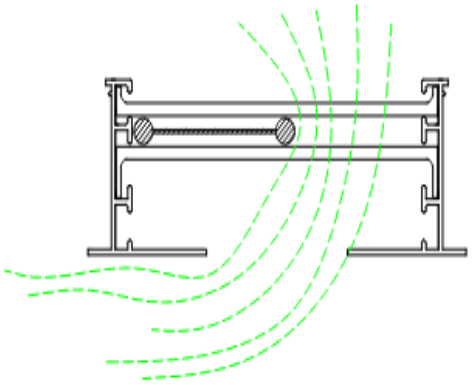
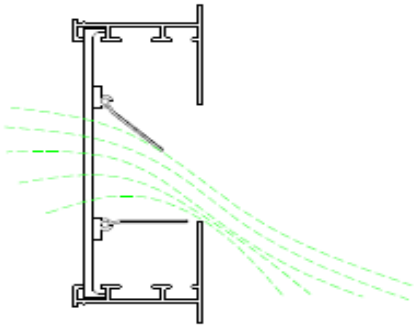
Flow Bar is an architecturally designed high capacity linear slot diffuser. It is designed to combine a high air handling capacity with maximum flexibility and is suitable for either ceiling or sidewall applications.
The flexibility of the system can blend into a design or provide contrast with its striking but simple design.
Flow Bar is a flexible system that can provide straight lines or curves to blend with other architectural elements and enhance the overall concept of the project.



Ceiling Mounted High Throw



Wall Mounted Jet Throw

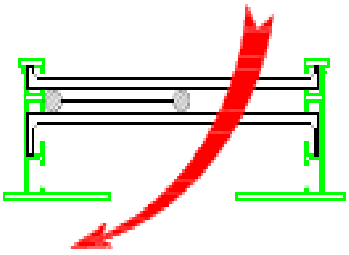
KEY FEATURES

High capacity single slot diffuser available in five slot of 25mm, 38 mm, 51mm,
Choice of HT (High Throw) series horizontal or JT (Jet Throw) series vertical air patterns.
Options include : Mitered corners, curved and angled end sections.
Ceiling or side wall applications

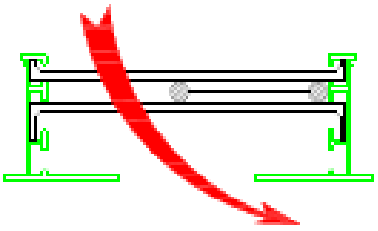
Curved Sections
Corner Pieces
Adjustable Discharge pattern
Modular or Continuous Lengths

Curved Sections
Corner Pieces
Adjustable Discharge pattern
Concealed Fixing
Matching Plenum Boxes

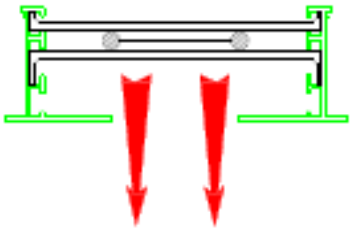
High Throw (HT) Ceiling Mounted



Horizontal left

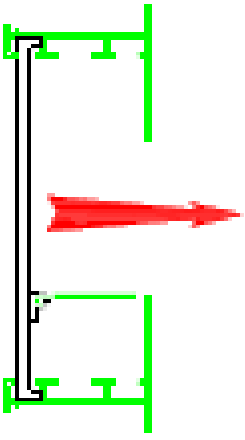


Horizontal Right

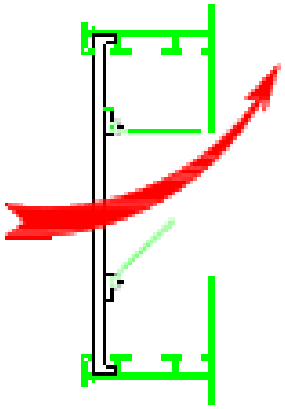


Vertical

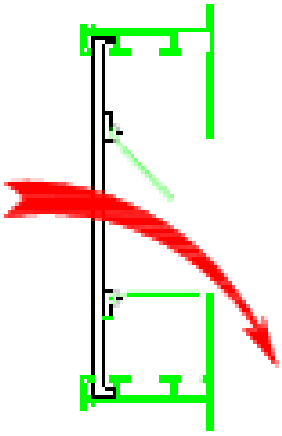
Jet Throw (JT) Sidewall Mounted



Horizontal

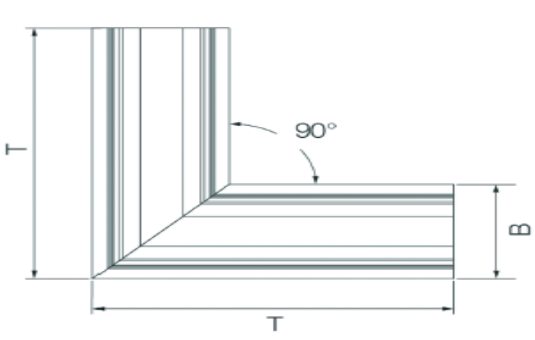


upward

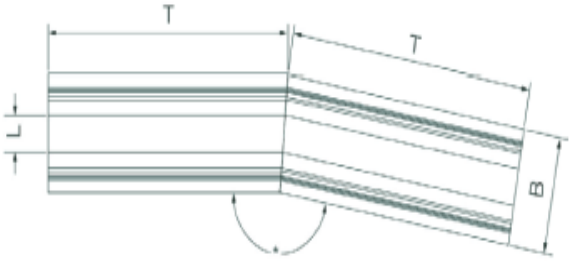


Downward

90 MITERED CORNERS



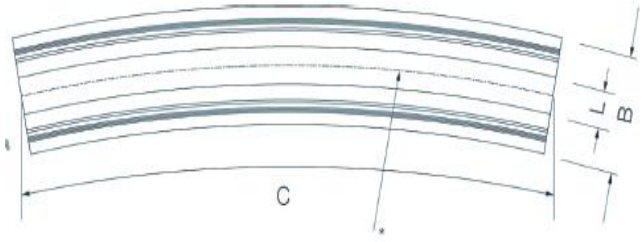
Multidirection Supply



Specify Angle

Curved Supply

NB:HT Active Curved Section
JT Non active dummy section only



Key:

B = Overall Width
T = Overall Length
C = Overall Arc Length
L = Slot Width

Specify Radius

Minimum radius dépendent on border styles. Please contact technical support

HIGH THROW (HT)

Continuous Slot Plenum High Throw (HT)
Data based on active section 1200 long

A. Data for 25 mm slot opening.

Air Flow, l/s-m	36	58	79	101	122	144	165
Static Pressure, Pa	7	18	34	55	81	112	148
NC (Noise Criteria)	<10	16	26	33	39	44	49
Throw, m	1.5 - 2.5 - 4.3	2.8 - 4 - 5.5	3.8 - 4.5 - 6.5	4.3 - 5.3 - 7.3	4.5 - 5.8 - 8.3	5.3 - 6 - 8.8	5.5 - 6.8 - 9.5

B. Data for 38 mm slot opening.

Air Flow, l/s-m	43	65	86	108	129	151	173
Static Pressure, Pa	8	18	32	51	73	99	129
NC (Noise Criteria)	<10	14	24	31	37	42	48
Throw, m	1.8 - 3 - 5	3 - 4.3 - 5.8	4 - 5 - 6.8	4.3 - 5.5 - 7.5	5 - 5.8 - 8.3	5.3 - 6.5 - 8.8	5.5 - 6.8 - 9.8

C. Data for 50 mm slot opening.

Air Flow, l/s-m	43	72	101	129	158	187	216
Static Pressure, Pa	5	14	28	46	68	95	127
NC (Noise Criteria)	<10	11	22	30	36	41	46
Throw, m	1.5 - 2.8 - 5	2.8 - 4.3 - 6	4 - 5.3 - 7.3	5 - 5.8 - 8.3	5.3 - 6.5 - 9.3	5.8 - 7 - 10	6 - 7.5 - 10.8

Pressures are given in Pascal (Pa)
Pressure loss data assumes a duct velocity is less than 4m/sec in the inlet duct
Isothermal throw values are given for terminal velocities of 0.8, 0.5 and 0.3m/sec respectively.
Throw data are based on 1200mm active section. For a 600mm section the throw values are 0.72 times those shown. For a 3000mm continuous length, the throw values are 1.7 times those shown and 1.8 for 3600mm units.
Each NC value represents the noise criteria curve which will not be exceeded by the sound pressure in any of the octave bands, 2nd through 7th, with a room absorption of 10dB, re 10 -12 watts, for a 1200mm Section.

The tests were conducted with no Plenum effect for pressure or sound.
Throw values for High Throw units are based on a 1-way discharge from the slot.
Throws listed are for the 1-way air pattern. each direction according to the number of slots aimed in that direction, with the total For divided airflow, select the air flow in airflow apportioned between slots.

JET THROW (JT)

Continuous Slot Plenum Jet Throw (JT)
Data based on active section 1200 long

A. Data for 25 mm slot opening.

Air Flow, l/s-m	31	62	93	124	155	186	217
Static Pressure, Pa	2	7	15	27	42	61	83
NC (Noise Criteria)	<10	<10	17	24	28	32	36
Throw, m	0.5 - 1 - 2.3	1.3 - 2.3 - 4	2.3 - 3 - 5.8	2.8 - 4 - 6.8	3.3 - 5.3 - 7.3	4 - 5.8 - 8	4.5 - 6 - 8.8

B. Data for 38 mm slot opening.

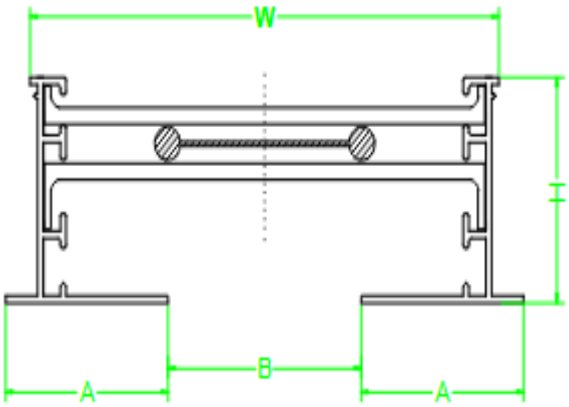
Air Flow, l/s-m	46	93	139	186	232	279	325
Static Pressure, Pa	2	8	18	31	49	70	95
NC (Noise Criteria)	<10	<10	13	22	28	34	40
Throw, m	0.5 - 1.3 - 2.3	1.5 - 2.3 - 4.5	2.3 - 3.3 - 6.8	3 - 4.5 - 8	3.8 - 5.5 - 9.3	4.5 - 6.8 - 9.8	5.3 - 7.5 - 10.8

C. Data for 50 mm slot opening.

Air Flow, l/s-m	54	116	178	240	302	364	426
Static Pressure, Pa	1	7	15	28	44	64	88
NC (Noise Criteria)	<10	18	24	28	32	37	40
Throw, m	0.3 - 1 - 2.3	1.5 - 2.5 - 4.5	2.5 - 3.8 - 7	3 - 5.- 9.3	4 - 6 - 10.3	5 - 7.3 - 11.3	5.5 - 8.5 - 12.3

Pressures are given in Pascal (Pa)
Pressure loss data assumes a duct velocity is less than 4m/sec in the inlet duct
Isothermal throw values are given for terminal velocities of 0.8, 0.5 and 0.3m/sec respectively.
Throw data are based on 1200mm active section. For a 600mm section the throw values are 0.72 times those shown. For a 3000mm continuous length, the throw values are 1.7 times those shown and 1.8 for 3600mm units.
Each NC value represents the noise criteria curve which will not be exceeded by the sound pressure in any of the octave bands, 2nd through 7th, with a room absorption of 10dB, re 10-12 watts, for a 1200mm section.
For supply units used as a return, add 3 NC.
The tests were conducted with no Plenum effect for pressure or sound.
Throws listed are for the 1-way air pattern. For divided airflow, select the air flow in each direction according to the number of slots aimed in that direction, with the total airflow apportioned between slots.

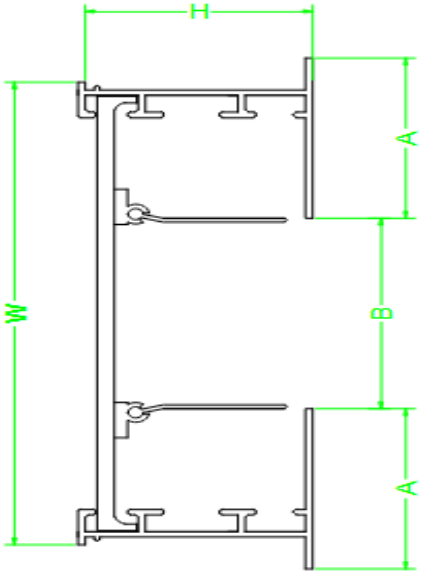
DIMENSIONS & DETAILS - HIGH THROW (HT)



SFB--25/38/50 - HT				
	A	B	W	H
1 Slot (25mm)	25	25	70	46
1 Slot (38mm)	29	38	95	46
1 Slot (51mm)	37	50	121	46

Model SFB-25/38/50

DIMENSIONS & DETAILS - JET THROW (JT)



SFB--25/38/50 - JT				
	A	B	W	H
1 Slot (25mm)	25	25	70	46
1 Slot (38mm)	29	38	95	46
1 Slot (51mm)	37	50	121	46

Model SFB-25/38/50

RECOMMENDED NOISE CRITERIA FOR ROOMS

Type Of Area	NC Level (dB)	Type Of Area	NC Level (dB)
AUDITORIUMS		SPORT ACTIVITIES INDOOR	
Concert and Opera Halls.		Coliseums	30 to 40
Studios for sound Reproduction	20 to 25	Bowling Alleys. Gymnasiums	35 to 45
Legitimate Theaters. Multi-purpose Halls	25 to 30	Swimming Pools	40 to 55
Movie Theatres. Lecture halls,			
Planetoruim, TV audience studios	30 to 35	TRANSPORTATION	
Lobbies	35 to40	Ticket Sales Office	30 to 40
		Lounges, waiting Rooms	35 to 50
CHURCHES AND SCHOOLS			
Sanctuaries	20 to 30	HOTELS	
Libraries. Schools and Classrooms	30 to 40	Individual rooms or suites. Bell rooms.	
Laboratories	35 to 45	Banquet rooms	30 to 40
Recreation Halls. Corridors and Halls	35 to 50	Halls and corridors Lobbies	35 to 45
Kitchens	40 to 50	Garages. Kitchens and Laundries	40 to 50
HOSPITALS AND CLINICS		MANUFACTURING AREAS	
Private Rooms	25 to 35	Foreman's Office	40 to 50
Operating Rooms. Wards	30 to 40	Assembly Lines. Light Machinery	55 to 75
Halls and Corridors. Laboratories,		Foundries. Heavy Machinery	55 to 75
Lobbies and waiting Rooms	35 to 45		
Washrooms and Toilets	40 to 50	OFFICES	
		Board Room	20 to 30
RESTAURANTS & LOUNGES		Conference Room	25 to 35
Restaurants	35 to 45	Executive Office	30 to 40
Cocktail Lounges	35 to 50	Supervisor Office. Reception Room	30 to 45
Night Clubs	35 to 45	General Open Offices. Drafting	
Cafeterias	40 to 50	Rooms	35 to 50
		Halls and Corridors	
		Tabulation and Computation	40 to 60
STORES RETAIL			
Clothing Stores. Department		PUBLIC BUILDINGS	
Stores(upper floors)	35 to 45	Public Libraries .Museums.	
Department Store (main floor).		Court Rooms	30 to 40
Small Retail Store, Supermarkets	40 to 50	Post Offices .General Banking Area.	
		Lobbies	35 to 45
		Washrooms and Toilets	40 to 50

Recommended range of noise criteria from ASHRAE GUIDE.

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