ALSHARQA

DISC VALVE

AIR OUTLETS
TECHNICAL CATALOGUE

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

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INDEX

Construction

-**Frame and disc**:Steel sheet construction or Aluminum.
-**Mounting rings**:Galvanized sheet steel or Aluminum

Description

Frame and disc is made high quality galvanized steel sheet construction or Aluminum with Powder coating to RAL colours.

Disc is attached to the frame by theaded rod .

Air flow can be adjusted by regulating the cone up or down (+A or –A)

Foam gasket is sealed Around the back of frame to avoid air leakage.

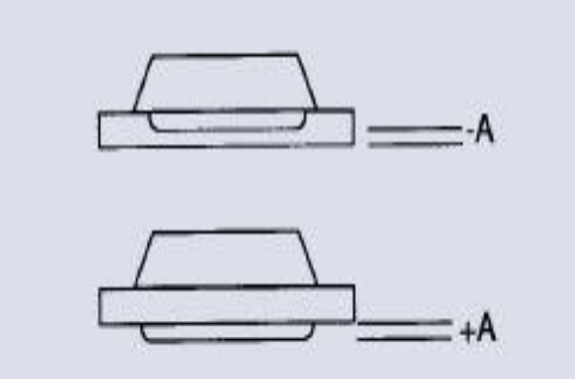
These valves can be used for supply, exhaust And ventilation applications.

Disc valves are best suited to air disc tribution system handling relatively low air flow rates within small cicular duct work .

Can be mounted in wall , celing or exposed air ducts with mounting rings.

Recommended for exhaust of greasy and damp air in damp areas such As toilets,bathroom and kitchens.

MODEL: SDV



POSITION OF THE DISC

Standard finishes:

powder to RAL 9010 colour.

Flexiblity of finishing is available as option.

Dimensions:

please check dimensions in fig.1
and size details in table.1.

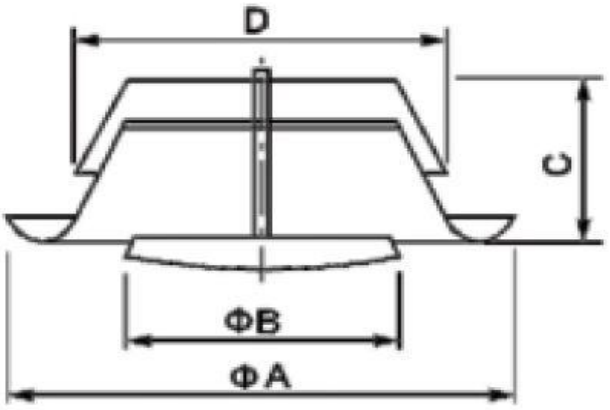


Fig.1

SDV	A	B	C	D
80	115	62	42	77.5
100	138	75	40	97.5
125	164	100	46	122.5
160	211	130	54	157.5
200	248	158	63	197.5
250	305	215	75	248

TABLE.1.

TABLE (A) AIR FLOW DATA
SUPPLY AIR DISC VALVE

Neck Size in mm dia	Position of disc	Air flow rate								
		CFM	10	20	40	60	80	100	120	140
80	A=+10	P in mm H2O NC in dB	0.76 <20	1.83 22	5.6 38					
	A=0	P in mm H2O NC in dB	1.22 <20	3.4 26	9.6 44					
	A=-10	P in mm H2O NC in dB	2.04 <20	5.6 35	>20 >45					
100	A=+10	P in mm H2O NC in dB	0.51 <20	1.12 <20	3.46 30	6.6 38				
	A=0	P in mm H2O NC in dB	0.71 <20	2.04 20	6.11 36	11.21 44				
	A=-10	P in mm H2O NC in dB	1.43 <20	4.08 31	12.23 45	>20 >45				
125	A=+10	P in mm H2O NC in dB	0.41 <20	1.12 <20	30.6 26	5.61 33	9.2 42			
	A=0	P in mm H2O NC in dB	0.82 <20	1.83 <20	5.61 33	9.4 40	14.78 >45			
	A=-10	P in mm H2O NC in dB	1.22 <20	3.06 26	8.87 42	16.3 >45	>20 >45			

TABLE (A) AIR FLOW DATA
SUPPLY AIR DISC VALVE

Neck Size in mm dia	Position of disc	Air flow rate								
		CFM	10	20	40	60	80	100	120	140
160	A=+10	P in mm H2O NC in dB	<0.4 <20	0.61 <20	1.83 20	4.3 25	5.7 31	9.2 37	12.7 40	
	A=0	P in mm H2O NC in dB	<0.4 <20	1.22 <20	3.78 25	8.2 35	11.2 41	18.3 45	>20 >45	
	A=-10	P in mm H2O NC in dB	1.0 <20	2.75 30	8.2 41	16.3 >45	>20 >45	>20 >45	>20 >45	
200	A=+10	P in mm H2O NC in dB	<0.4 <20	<0.4 <20	0.82 <20	16.3 <20	3.1 22	4.1 25	5.1 33	7.9 37
	A=0	P in mm H2O NC in dB	<0.4 <20	0.71 <20	1.83 <20	4.1 24	5.61 30	9.1 36	10.7 40	18.3 45
	A=-10	P in mm H2O NC in dB	<0.4 <20	1.22 <20	4.3 26	7.6 35	10.7 39	18.3 45	>20 >45	>20 >45
250	A=+10	P in mm H2O NC in dB	<0.4 <20	<0.4 <20	<0.4 <20	0.81 <20	1.63 <20	3.2 21	4 24	5.3 35
	A=0	P in mm H2O NC in dB	<0.4 <20	<0.4 <20	0.72 <20	1.81 <20	4.2 24	5.41 29	9.1 35	10.9 42
	A=-10	P in mm H2O NC in dB	<0.4 <20	<0.4 <20	1.23 <20	4.1 26	7.7 35	10.3 38	18.2 45	>20 >45

*Pt= Total pressure loss across the disc valve in mm of H2o.
* NC based on a room attenuation of 10 dB.
* A= + 10,0 & -10 = Position of the disc 10 mm down of normal position , at normal position , and 10 mm above normal position.

TABLE (B) AIR FLOW DATA
RETURN AIR DISC VALVE

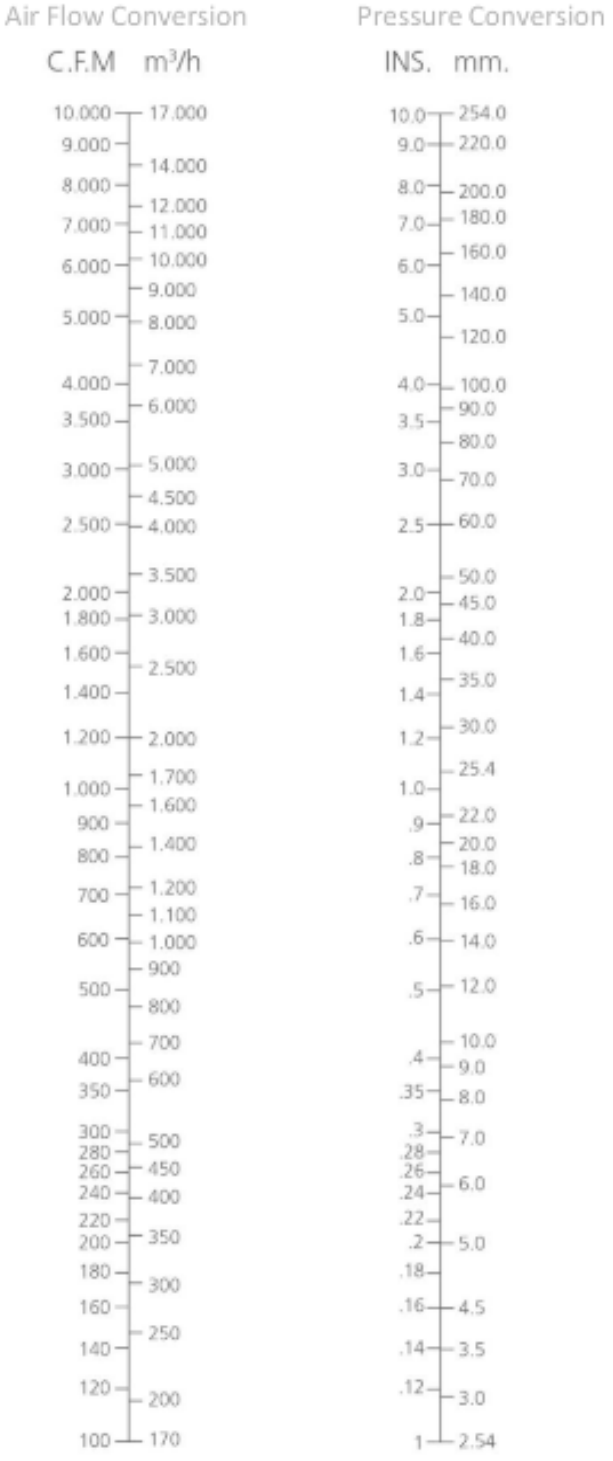
Neck Size in mm dia	Position of disc	Air flow rate								
		CFM	10	20	40	60	80	100	150	200
80	A=+10	P in mm H2O NC in dB	<0.4 <20	0.91 <20	4.3 26	10.2 37				
	A=0	P in mm H2O NC in dB	<0.4 <20	1. 43 <20	7.1 32	17.3 45				
	A=-10	P in mm H2O NC in dB	1.83 <20	5.1 23	18 45	>20 >45				
100	A=+10	P in mm H2O NC in dB	<0.4 <20	<0.4 <20	1.63 <20	3.8 23	5.8 31	9.7 37		
	A=0	P in mm H2O NC in dB	<0.4 <20	0.76 <20	2.5 <20	5.6 30	9.7 35	14.7 45		
	A=-10	P in mm H2O NC in dB	0.61 <20	2.24 <20	7.6 35	15.2 40	>20 >45	>20 >45		
125	A=+10	P in mm H2O NC in dB	<0.4 <20	<0.4 <20	0.71 <20	1.42 <20	2.9 20	4.1 25	9.7 37	
	A=0	P in mm H2O NC in dB	<0.4 <20	<0.4 <20	1.83 <20	4.1 21	8.15 30	11.2 35	>20 >45	
	A=-10	P in mm H2O NC in dB	<0.4 <20	2.1 <20	7.1 23	16.8 35	>20 >45	>20 >45	>20 >45	

TABLE (B) AIR FLOW DATA
RETURN AIR DISC VALVE

Neck Size in mm dia	Position of disc	Air flow rate								
		CFM	10	20	40	60	80	100	150	200
160	A=+10	P in mm H2O NC in dB	<0.4 <20	<0.4 <20	0.4 <20	0.81 <20	1.43 <20	2.1 <20	5.2 28	9.7 37
	A=0	P in mm H2O NC in dB	<0.4 <20	<0.4 <20	0.81 <20	1.74 <20	3.4 <20	5.3 25	12.2 37	>20 45
	A=-10	P in mm H2O NC in dB	<0.4 <20	0.5 <20	1.74 <20	3.8 <20	7.6 27	14.7 35	>20 >45	>20 >45
200	A=+10	P in mm H2O NC in dB	<0.4 <20	<0.4 <20	<0.4 <20	<0.4 <20	0.76 <20	1.12 <20	2.6 27	4.38 34
	A=0	P in mm H2O NC in dB	<0.4 <20	<0.4 <20	0.7 <20	1.4 <20	2.3 <20	3.4 20	8.4 35	12.2 42
	A=-10	P in mm H2O NC in dB	<0.4 <20	0.5 <20	1.62 <20	3.4 <20	7.1 <20	11.2 34	>20 >45	>20 >45
250	A=+10	P in mm H2O NC in dB	<0.4 <20	<0.4 <20	<0.4 <20	<0.4 <20	0.51 <20	0.9 <20	1.13 25	2.8 28
	A=0	P in mm H2O NC in dB	<0.4 <20	<0.4 <20	<0.4 <20	0.95 <20	1.3 <20	2.2 <20	7.3 31	8.5 36
	A=-10	P in mm H2O NC in dB	0.5 <20	0.4 <20	<0.4 <20	1.9 <20	5.9 <20	8.1 25	>20 35	>20 45

*Pt= Total pressure loss across the disc valve in mm of H2o.
* NC based on a room attenuation of 10 dB.
* A= + 10,0 & -10 = Position of the disc 10 mm down of normal position , at normal position , and 10 mm above normal position.

Airflow / Pressure Conversion Chart



Recommended Air Changes Per Hour (For Ventilation)

Assembly rooms	4 - 8
Bakeries	20 - 30
Banks/Building societies	4 - 8
Bathrooms	6 - 10
Bedrooms	2 - 4
Billiard rooms	6 - 8
Boiler rooms	15 - 30
Cafes and coffee bars	10 - 12
Canteens	8 - 12
Cellars	3 - 10
Churches	1 - 3
Cinemas and theatres	10 - 15
Club rooms	12 minimum
Compressor rooms	10 - 12
Conference rooms	8 - 12
Dance halls	12 minimum
Electroplating shops	10 - 12
Engine rooms	15 - 30
Entrance halls, corridors	3 - 5
Factories and workshops	8 - 10
Foundries	15 - 30
Garages	6 - 8
Glasshouses	25 - 60
Gymnasiums	6 minimum
Hairdressing salons	10 - 15
Hospitals - sterilizing	15 - 25
Kitchens - domestic	15 - 20
- commercial	30 minimum
Laboratories	6 - 15
Laundries	10 - 30
Lavatories	6 - 15
Lecture theatres	5 - 8
Libraries	3 - 5
Living rooms	3 - 6
Offices	6 - 10
Paint shops (not cellulose)	10 x 20
Photo and X-ray darkrooms	10 - 15
Public house bars	12 minimum
Recording control rooms	15 - 25
Recording studios	10 - 12
Restaurants	5 - 7
Schoolrooms	5 - 7
Shops and supermarkets	8 - 5
Shower baths	15 - 20
Stores and warehouses	3 - 6
Squash courts	4 minimum
Swimming baths	10 - 15
Utility rooms	15 - 20
Welding shops	15 - 30

Increase by 50% where heavy smoking occurs or if the room is in underground.

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Administration:53 B2 omarat ElFarokya,ElNozha ElGedida,Cairo
Factory:piece No 134 in 250 Fdan-Badr city -Egypt
Tel. Fax :(202) 21923292 - 010000 30 528
Mobile:010064 17 304 - 010000 30 581
E-mail:info@alsharqa.com
www.alsharqa.com