

SQUARE DIFFUSERS



MODELS ISA, ISAI, ISAM ARCHITECTURAL PLAQUE DIFFUSERS

MODEL **ISA** - Square neck

MODEL **ISAM** - Round neck

MODEL **ISAI** - Insulated

ISA Series supply diffusers are recommended for heating, ventilating and cooling.

The ISA series provide a 360° air diffusion pattern with an adjustable opening. The face panel can be adjustable by the means of four spring-loaded countersunk screws to increase or decrease the air throw.

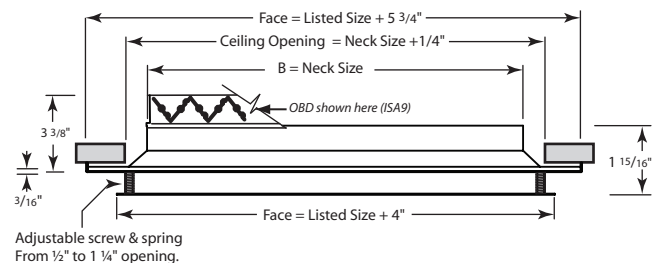
Features:

- Full Face 12"x12", 15"x15", 18"x18", 21"x21" and 24"x24"
- 1 Way, 2 Way Opposed, 2 Way Corner, 3 Way or 4 Way
- Commercial-grade aluminum construction
- Core can be easily removed without tools
- Ideal for VAV systems
- Powder paint coating - White (default) Custom colours avail.

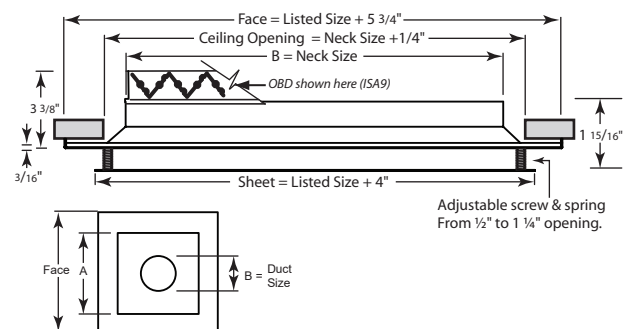


ISA

ISA/ISA9



ISAM/ISAM4/ISAM5



PERFORMANCE DATA

SERIES ISA

PLAQUE DIFFUSERS



6" x 6" Square Neck

Face Opening (inches)	Neck Velocity (fpm)	165	250	335	420	625	830	1035	1240	1445
	Velocity Pressure (in H ₂ O)	.003	.005	.007	.011	.024	.041	.064	.091	.123
	Airflow, CFM	50	70	90	110	160	210	260	310	360
1.25"	Total Pressure				.04	.07	.11	.17	.24	.32
	NC				14	19	22	26	31	37
	Throw (ft)				1	3	5	6	7	9
1"	Total Pressure			.03	.04	.08	.12	.18	.27	.35
	NC			—	14	19	22	26	32	38
	Throw (ft)			1	2	4	6	7	9	11
0.75"	Total Pressure	.01	.02	.03	.04	.09	.14	.22	.31	.42
	NC	—	—	—	14	19	22	26	32	38
	Throw (ft)	1	2	3	4	5	7	8	9	11
0.5"	Total Pressure	.02	.03	.04	.06	.11	.29	.28	.42	.57
	NC	—	—	—	21	24	31	38	43	47
	Throw (ft)	2	3	4	5	6	8	9	10	12

9" x 9" Square Neck

Face Opening (inches)	Neck Velocity (fpm)	94	144	193	287	381	474	568	751	845
	Velocity Pressure (in H ₂ O)	—	.001	.003	.005	.009	.013	.019	.032	.141
	Airflow, CFM	60	85	110	160	210	260	310	410	460
1.25"	Total Pressure				.02	.02	.04	.07	.11	.13
	NC				13	18	21	24	33	38
	Throw (ft)				2	3	5	6	8	10
1"	Total Pressure			.02	.03	.04	.06	.08	.13	.16
	NC			—	14	19	22	25	34	40
	Throw (ft)			2	4	5	6	7	10	12
0.75"	Total Pressure		.01	.02	.03	.05	.08	.11	.18	.22
	NC		—	—	15	20	23	36	36	41
	Throw (ft)		2	3	6	6	7	9	11	13
0.5"	Total Pressure	—	.01	.03	.05	.07	.13	.18	.30	.38
	NC	—	—	—	15	21	23	27	38	43
	Throw (ft)	2	3	4	6	7	9	10	13	14

12" x 12" Square Neck

Face Opening (inches)	Neck Velocity (fpm)	55	110	165	220	275	330	435	540	650
	Velocity Pressure (in H ₂ O)	—	.001	.003	.004	.005	.007	.011	.016	.024
	Airflow, CFM	60	110	160	210	260	310	410	510	560
1.25"	Total Pressure			.01	.02	.03	.04	.05	.08	.10
	NC			—	14	19	22	26	31	37
	Throw (ft)			3	4	6	7	9	12	13
1"	Total Pressure		—	.01	.02	.04	.05	.07	.10	.13
	NC		—	—	14	18	22	26	32	38
	Throw (ft)		2	4	5	7	8	10	13	15
0.75"	Total Pressure		.01	.02	.04	.05	.07	.10	.16	.19
	NC		3	5	6	7	9	11	14	15
	Throw (ft)		—	—	14	19	23	28	36	38
0.5"	Total Pressure	—	.03	.04	.06	.08	.11	.19	.29	.35
	NC	—	—	—	15	21	24	31	39	46
	Throw (ft)	2	3	4	5	6	8	9	15	17

NC Value based on 10 db room attenuation.

Throw Values are based on isothermal air and terminal velocities of 150 fpm, 100 fpm & 75 fpm respectively
Total Pressure the sum of static pressure plus velocity pressure and is given in inches w.g.

PERFORMANCE DATA

SERIES ISA

PLAQUE DIFFUSERS



15" x 15" Square Neck

Face Opening (inches)	Neck Velocity (fpm)	37	74	111	148	215	286	355	424	493
	Velocity Pressure (in H ₂ O)	.001	.002	.002	.002	.003	.005	.007	.010	.014
	Airflow, CFM	50	100	150	200	300	400	500	600	700
1.25"	Total Pressure				.01	.02	.03	.05	.07	.10
	NC				—	19	23	27	34	40
	Throw (ft)				—	5	6	9	10	12
1"	Total Pressure			.03	.04	.08	.12	.18	.27	.35
	NC			—	14	20	24	29	36	43
	Throw (ft)			2	4	6	8	10	12	14
0.75"	Total Pressure		.01	.01	.02	.04	.08	.11	.15	.20
	NC		—	—	—	16	22	27	33	41
	Throw (ft)		2	4	5	8	11	13	15	17
0.5"	Total Pressure	.01	.02	.03	.04	.08	.14	.21	.29	.39
	NC	—	—	—	16	22	27	33	41	49
	Throw (ft)	2	3	5	6	9	12	15	18	21

18" x 18" Square Neck

Face Opening (inches)	Neck Velocity (fpm)	27	54	104	153	203	252	302	351	401
	Velocity Pressure (in H ₂ O)	.001	.002	.002	.002	.003	.004	.006	.007	.009
	Airflow, CFM	50	100	200	300	400	500	600	700	800
1.25"	Total Pressure			.01	.03	.04	.06	.08	.11	.14
	NC			—	15	21	23	19	34	41
	Throw (ft)			2	4	6	7	9	11	13
1"	Total Pressure			.02	.03	.04	.06	.08	.11	.14
	NC			—	15	21	25	29	36	44
	Throw (ft)			3	5	8	9	10	14	15
0.75"	Total Pressure	.01	.01	.02	.04	.06	.08	.13	.16	.21
	NC	—	—	—	16	22	26	32	38	47
	Throw (ft)	2	3	5	7	9	10	14	16	18
0.5"	Total Pressure	—	.01	.03	.06	.11	.15	.23	.30	.39
	NC	—	—	11	17	23	28	34	41	51
	Throw (ft)	2	4	6	9	12	14	17	19	21

NC Value based on 10 db room attenuation.

Throw Values are based on isothermal air and terminal velocities of 150 fpm, 100 fpm & 75 fpm respectively
Total Pressure the sum of static pressure plus velocity pressure and is given in inches w.g.

PERFORMANCE DATA

SERIES ISA/ISAM

PLAQUE DIFFUSERS



HOW TO ORDER ISA SERIES

ISA-3-A1-ES-Y2424 0606 /W

MODEL SERIES

Adjustable Plaque Diffusers **ISA**
...with OBD **ISA9**
...Insulated **ISAI**

FINISH (OPTIONAL)

Standard is White (/W)
See chart for more

MOUNTING (OPTIONAL)

Default is lay-In (-0),
no need to specify

Lay-In (default) **-0**
Screw Holes in Face **-3**
Concealed **-4**

DIRECTION (OPTIONAL)

1 Baffle **-A1**
2 Corner Baffles **-AC**
2 Opposed Baffles **-AO**
3 Baffles **-A3**
4 Baffles **-A4**

OPTION

Square equalizing grid **-ES**

NECK DIMENSIONS

In Inches

6" x 6" **0606**
9" x 9" **0909**
12" x 12" **1212**
15" x 15" **1515**
18" x 18" **1818**

FACE DIMENSIONS

12" x 24" **-Y1224**
24" x 12" **-Y2412**
24" x 24" **-Y2424**
24" x 48" **-Y2448**
48" x 24" **-Y4824**
20" x 20" **-Y2020**

HOW TO ORDER ISAM SERIES

ISAM-3-A1 R4 EG-Y2424 0606 06 /W

MODEL SERIES

Adjustable Plaque Diffusers **ISAM**
...with OBD **ISAM4**
...Insulated **ISAM5**

FINISH (OPTIONAL)

Standard is White (/W)
See chart for more

MOUNTING (OPTIONAL)

Default is lay-In (-0),
no need to specify

Lay-In (default) **-0**
Screw Holes in Face **-3**
Concealed **-4**

DIRECTION (OPTIONAL)

1 Baffle **-A1**
2 Corner Baffles **-AC**
2 Opposed Baffles **-AO**
3 Baffles **-A3**
4 Baffles **-A4**

INSULATION (OPTIONAL)

Default is uninsulated,
no need to specify

R4.2 Taped Insulation **-R4**
R6 Taped Insulation **-R6**

OPTION

Square equalizing grid **-ES**

NECK DIMENSIONS

In Inches

6" **06**
8" **08**
10" **10**
12" **12**
14" **14**

NECK DIMENSIONS

In Inches

6" x 6" **0606**
9" x 9" **0909**
12" x 12" **1212**
15" x 15" **1515**
18" x 18" **1818**

FACE DIMENSIONS

12" x 24" **-Y1224**
24" x 12" **-Y2412**
24" x 24" **-Y2424**
24" x 48" **-Y2448**
48" x 24" **-Y4824**
20" x 20" **-Y2020**