# **SQUARE DIFFUSERS**

**MODEL ISO** 

## ARCHITECTURAL LINE Square Panel Diffuser

### MODEL ISO

ISO Supply Diffusers with integral round necks are recommended for heating, ventilating and cooling.

Round-neck-to-square-face construction results in a 360° air diffusion pattern similar to a full round diffuser. High diffusion induction rates result in rapid temperature and velocity equalization of the mixed air mass well above the zone of occupancy. Horizontal performance assures confident use of cooling temperature differential of 30° F and greater, at predicted low air motion 35 fpm in the zone of occupancy. ISO Supply Diffusers perform efficiently with air loadings of 6 to 30 air changes per hour (based on 10 ft. ceiling height), and sound level range of NC 25 to 35.

Core is removable for access to optional damper (model ISOR), or non-removable (model ISON).

## **FEATURES**

- Full face 24" x 24" for all neck sizes.
- Full face 12" x 12" for 6" & 8" neck sizes.
- Heavy-gauge all-steel construction.
- Removable core (ISOR) can be removed without tools.
- Ideal for VAV systems.
- Powder paint coating White.
- Matching OBD dampers available.

		Nominal	Overall	Drywall		
Listed	Neck	Face	Face Size	Ceiling		
Size	Dia	Size	"B"	Opening		
1206	6	12 x 12	11¾ x 11¾	10½ x 10½		
1208	8	12 x 12	11¾ x 11¾	10½ x 10½		
2406	6	24 x 24	23³/4 x 23³/4	22½ x 22½		
2408	8	24 x 24	23³/4 x 23³/4	22½ x 22½		
2410	10	24 x 24	23³/4 x 23³/4	22½ x 22½		
2412	12	24 x 24	23¾ x 23¾	22½ x 22½		
2414	14	24 x 24	23³/4 x 23³/4	22½ x 22½		



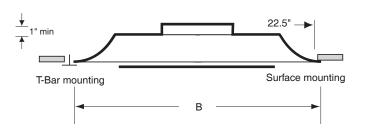


ISO

(Full face 24" x 24")

### **HANDY FEATURE:**

One standard model suits both T-Bar and Drywall installations using rigid ducting.



## **ENGINEERING PERFORMANCE DATA**

## **MODEL ISO**

## **SQUARE PANEL**



12" x 12" face

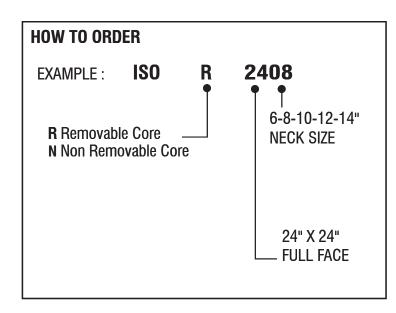
	Neck Velocity (fpm)	400	500	600	700	800	1000	1200	1400	1600
	Velocity Pressure (in H <sub>2</sub> 0)	.010	.016	.022	.031	.041	.062	.090	.122	.160
6	CFM	78	98	118	137	157	196	235	274	313
	Total Pressure	.05	.07	.10	.14	.18	.29	.41	.58	.72
	NC	< 20	< 20	< 20	< 20	<20	21	24	29	37
	Throw (ft)	2-3-6	3-4-7	4-5-9	4-5-10	5-6-11	6-8-12	7-9-13	8-10-15	9-11-16
8	CFM	140	175	209	244	279	349	419	489	559
	Total Pressure	.07	.10	.15	.21	.29	.42	.62	.84	1.00
	NC	< 20	< 20	< 20	<20	<20	25	30	38	45
	Throw (ft)	2-4-7	3-5-9	4-7-10	5-8-11	6-9-12	7-10-14	8-12-17	10-12-18	11-14-20

### 24" x 24" face

SIZE (inches)	Neck Velocity (fpm)	400	500	600	700	800	1000	1200	1400	1600
	Velocity Pressure (in H <sub>2</sub> 0)	.010	.016	.022	.031	.041	.062	.090	.122	.160
	CFM	78	98	118	137	157	196	235	274	313
6	Total Pressure	.02	.03	.04	.05	.08	.1	.14	.19	.24
0	NC	< 20	< 20	< 20	< 20	<20	23	27	32	37
	Throw (ft)	1-2-4	2-3-4	2-3-5	2-3-6	3-4-7	4-5-8	4-6-9	4-7-10	6-8-14
	CFM	140	175	209	244	279	349	419	489	559
8	Total Pressure	.02	.03	.04	.06	.08	.11	.17	.23	.29
0	NC	< 20	< 20	< 20	<20	<20	28	32	36	41
	Throw (ft)	2-3-5	2-3-7	3-4-8	3-5-8	4-6-9	5-7-11	6-8-14	7-9-14	7-10-14
	CFM	218	273	327	382	436	545	654	763	872
10	Total Pressure	.03	.04	.06	.08	.11	.18	.24	.35	.48
10	NC	< 20	< 20	< 20	<20	23	29	36	40	44
	Throw (ft)	3-4-6	4-5-8	4-6-10	5-7-12	6-8-14	7-9-15	8-11-16	9-12-17	10-13-19
	CFM	314	393	471	550	628	785	941	1099	1246
12	Total Pressure	.04	.06	.08	.13	.16	.25	.35	.50	.67
12	NC	< 20	< 20	<20	21	24	31	38	43	47
	Throw (ft)	4-5-9	5-6-10	6-7-10	6-8-13	7-9-15	8-11-18	10-13-20	11-15-21	12-16-22
	CFM	492>	615	738	861	984	1230	1476	1722	1968
14	Total Pressure	.05	.08	.13	.16	.22	.32	.43	.59	.80
	NC	< 20	< 20	<20	22	27	34	40	43	47
	Throw (ft)	4-6-10	5-6-11	6-8-14	7-10-16	8-11-18	10-14-20	12-15-22	12-17-23	14-19-24

NC Value based on 10 db room attenuation.

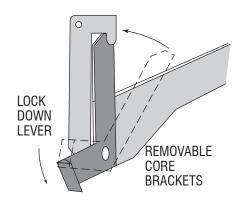
Throw Values are based on isothermal air and terminal velocities of 150 fpm, 100 fpm & 75 fpm respectively. Total Pressure the sum of static pressure plus velocity pressure and is given in inches w.g.



#### **IMPORTANT**

Removable core models should have their core locked in place after installation for security reasons.

Follow directions below.



**Core Locking**