

SQUARE DIFFUSERS



MODELS ISOH, ISOHD, ISOHI ARCHITECTURAL HEAVY PLAQUE DIFFUSERS

MODEL **ISOH** - Round neck

MODEL **ISOHD** - 2" high collar, single-box

MODEL **ISOHI** - R6 Insulated - Pre-scored for collars

ISOH series supply diffusers are recommended for heating, ventilating, and cooling. The ISOH series provide 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. ISOH series 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.

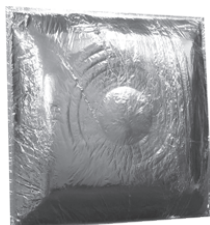
Features:

- Full face 24" x 24" for all neck sizes.
- Full face 12" x 12" for 6" & 8" neck sizes.
- Heavy-gauge all-steel construction.
- Ideal for VAV systems.
- Powder paint coating - White (default) Custom colours avail.
- Matching N4 and N5 dampers, NBI baffle and PF plaster frame available.

ISOH Model Size	Neck Dia	Nominal Face Size	Overall Face Size B x B	Drywall Ceiling Opening
1206	6	12 x 12	11 ³ / ₄ x 11 ³ / ₄	10 ¹ / ₂ x 10 ¹ / ₂
1208	8	12 x 12	11 ³ / ₄ x 11 ³ / ₄	10 ¹ / ₂ x 10 ¹ / ₂
2406	6	24 x 24	23 ³ / ₄ x 23 ³ / ₄	22 ¹ / ₂ x 22 ¹ / ₂
2408	8	24 x 24	23 ³ / ₄ x 23 ³ / ₄	22 ¹ / ₂ x 22 ¹ / ₂
2410	10	24 x 24	23 ³ / ₄ x 23 ³ / ₄	22 ¹ / ₂ x 22 ¹ / ₂
2412	12	24 x 24	23 ³ / ₄ x 23 ³ / ₄	22 ¹ / ₂ x 22 ¹ / ₂
2414	14	24 x 24	23 ³ / ₄ x 23 ³ / ₄	22 ¹ / ₂ x 22 ¹ / ₂

Model	Nominal Face Size	Overall Face Size B x B
ISOHI	24 x 24	23 ³ / ₄ x 23 ³ / ₄

All dimensions in inches



ISOHI fiberglass back



ISOH

Highlights:

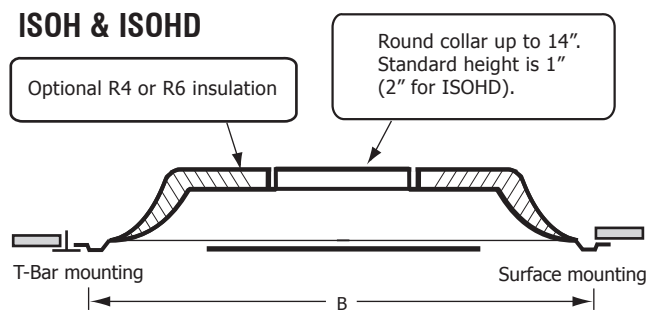
- **ISOH** model suits both T-Bar and Drywall installation using rigid ducts
- Removable core for access to optional damper

Insulation:

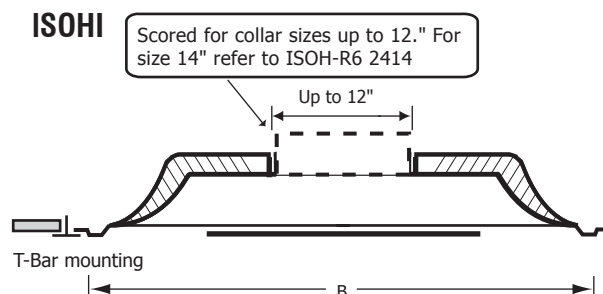
ISOH & ISOHD - Optional R4 or R6 insulation. R6 fiberglass insulation complies with A.S.T.M. E84 flame and smoke test. Only available on models with 24" x 24" face.

ISOHI - R6 fibreglass insulation.

ISOH & ISOHD



ISOHI



ENGINEERING PERFORMANCE DATA

SERIES ISOH HEAVY PLAQUE DIFFUSERS



12" x 12" face

SIZE (inches)	Neck Velocity (fpm)	400	500	600	700	800	1000	1200	1400	1600
	Velocity Pressure (in H ₂ O)	.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 ₂ O)	.010	.016	.022	.031	.041	.062	.090	.122	.160
6	CFM	78	98	118	137	157	196	235	274	313
	Total Pressure	.02	.03	.04	.05	.08	.1	.14	.19	.24
	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
8	CFM	140	175	209	244	279	349	419	489	559
	Total Pressure	.02	.03	.04	.06	.08	.11	.17	.23	.29
	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
10	CFM	218	273	327	382	436	545	654	763	872
	Total Pressure	.03	.04	.06	.08	.11	.18	.24	.35	.48
	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
12	CFM	314	393	471	550	628	785	941	1099	1246
	Total Pressure	.04	.06	.08	.13	.16	.25	.35	.50	.67
	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
14	CFM	492>	615	738	861	984	1230	1476	1722	1968
	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.

HOW TO ORDER ISOH SERIES

ISOH-R4-S-W3 2408 /W

MODEL SERIES

Standard Plaque **ISO**
Heavy Plaque **ISOH**
Standard Plaque,
... 2" Neck, Single-Box **ISOD**
Heavy Plaque,
... 2" Neck, Single-Box **ISOHD**

INSULATION (OPTIONAL)

Standard is uninsulated
R4.2 Taped Insulation **-R4**
R6 Taped Insulation **-R6**

PACKAGING (OPTIONAL)

Standard is 2 per box
Single Box **-S**

FINISH (OPTIONAL)
Standard is White (/W)
See chart for more

NECK DIAMETER
In Inches
06-08-10-12-14"

FACE DIMENSIONS
12" x 12" **12**
24" x 24" **24**

DIRECTION (OPTIONAL)

Standard is 4 Way
1 Way **-W1**
2 Way Corner **-WC**
2 Way Opposed **-WO**
3 Way **-W3**

HOW TO ORDER ISOHI

ISOHI-S /W

MODEL SERIES

Standard Plaque **ISOI**
Heavy Plaque **ISOHI**

PACKAGING (OPTIONAL)

Standard is 2 per box
Single Box **-S**

FINISH (OPTIONAL)
Standard is White (/W)
See chart for more