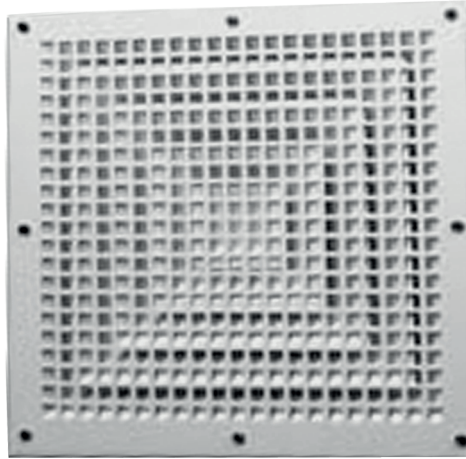


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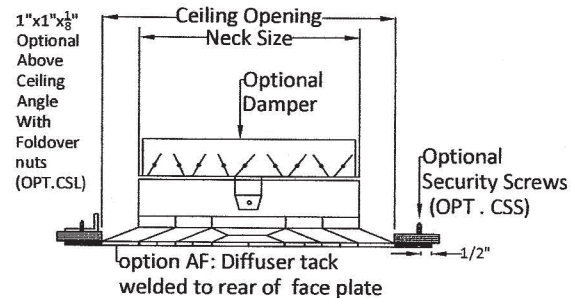
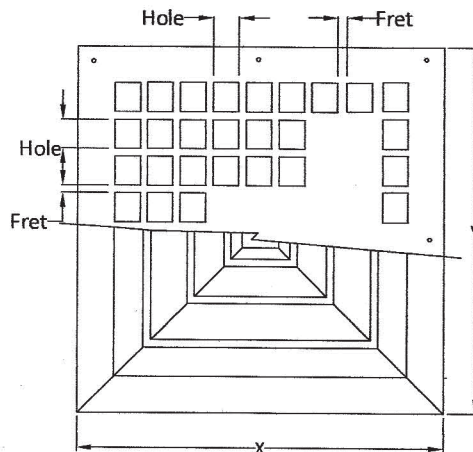
شركة الخليج لفتحات التكييف المركزي

GULF GRILLES CO.



CEILING SECURITY
DIFFUSER

A19
CEILING SECURITY
DIFFUSER



STANDARD CONSTRUCTION

Face: 2.5 mm steel

Hole Pattern: 13/16" square holes with 3/16" frets.

Diffuser: Commercial surface mount ceiling diffuser.

* Neck sizes are available in 3" increments

Finish: Electrostatic polyester powder coated. White

Required Construction

Face Material:

- 2.5 mm steel(Std)
- 2 mm steel
- 3 mm steel
- Other

Hole Pattern:

- 13/16" square holes with 3/16" frets(std)
- 3/4"x3/4" square holes with 1/4" frets
- 1/2"x1/2" holes with 3/16" frets.
- Other

Finish :

- White(Std)
- Other

Other Material:

- SCD-A all aluminum construction.10 gauge thick face, aluminum diffuser
- SCD-SS all stainless steel construction.
- steel diffuser

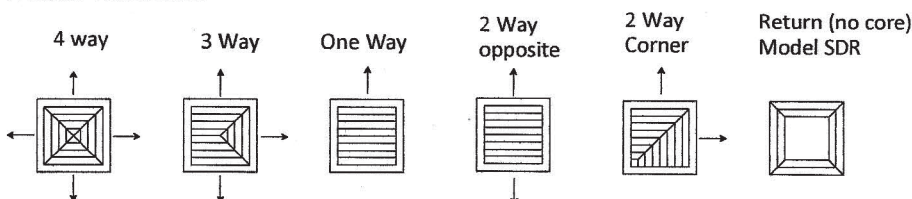
Mounting Options

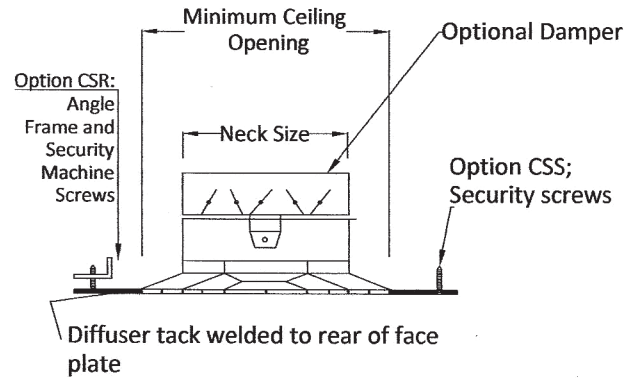
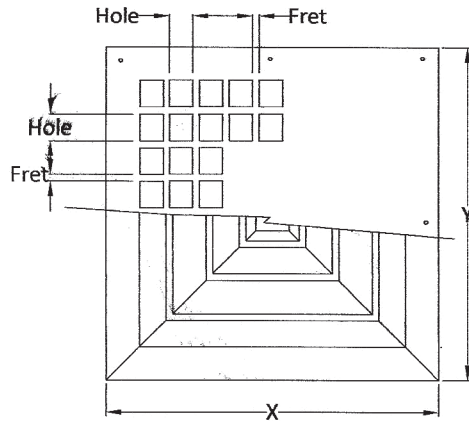
- CSS- countersunk screw holes in face 10" o.c with #10x2" long security sheet metal screws. Clearance hole in diffuser for securing to structure above diffuser.
- CST- Countersunk screw holes in face 10" o.c with # 10x1" long security sheet metal screws. Starter hole in diffuser for securing face plate directly to diffuser
- CSL- Countersunk screw holes in face 10" o.c with #10-24x 2" long security machine screws for 1-1/2" maximum ceiling thickness, 1"x1"x1/8" steel angle frame with matching holes and fold over nuts.
- AF- 1"x1"x1/8" angle frame with extended legs on one end. Loose for field welding to sleeve.

Accessories

- OBD: Face operated opposed blade damper.
- SXR: Square to round transition
- EG: Equalizing grid.
- SLV: 2.5 mm steel sleeve with continuously welded or formed seams, stitch welded to diffuser neck

THROW PATTERNS





STANDARD CONSTRUCTION

Face: 12 gauge steel

Hole Pattern: 13/16" square holes with 3/16" frets.

Diffuser: Commercial surface mount ceiling diffuser.

* Neck sizes are available in 3" increments

Finish: Electrostatic polyester powder coated. White

Required Construction

Face Material:

- 12 gauge steel(Std)
- 14 gauge steel
- 10 gauge steel
- Other

Hole Pattern:

- 13/16" square holes with 3/16" frets(std)
- 3/4"x3/4" square holes with 1/4" frets
- 1.2"x1/2" holes with 3/16" frets.
- Other

Finish :

- White(Std)
- Other

Other Material:

- SCD9-EA all aluminum construction.10ga (.100") thick face, aluminum diffuser
- SCD9-ESS all stainless steel construction.
- 12 gauge type 304 face, stainlesssteel diffuser

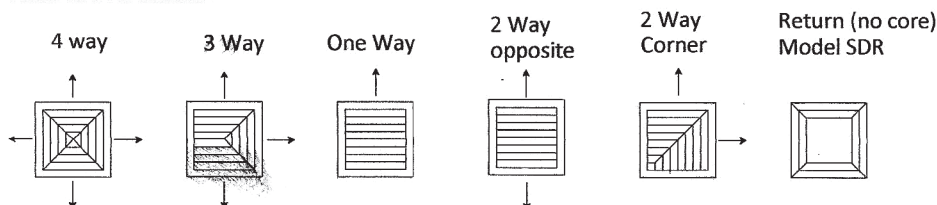
Mounting Options

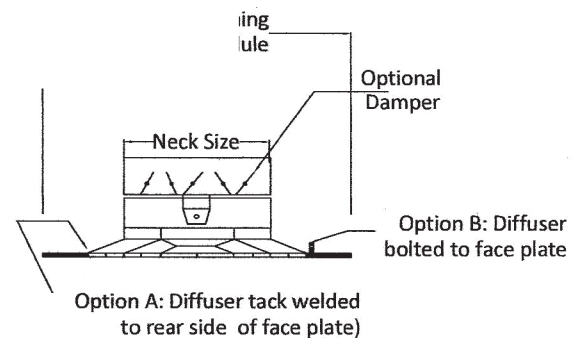
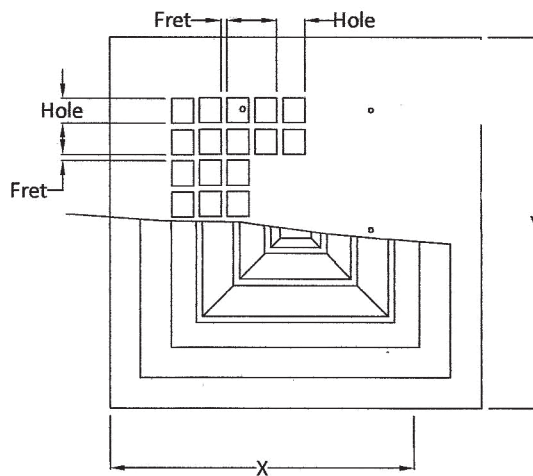
- CSS: Countersunk screw holes in face 10"o.c with #10x2" long security sheet metal screws. Clearance hole in diffuser for securing to structure above diffuser.
- CSR: Countersunk screw holes in face 10" o.c with #10-24x 2" long security machine screws for 1-1/2" maximum ceiling thickness, 1"x1" x 1/8" steel angle frames with matching holes and fold over nuts.

Accessories

- OBD: Face operated opposed blade damper
- SXR: Square to round transition
- EG: Equalizing grid.

THROW PATTERNS





STANDARD CONSTRUCTION

Face: 2.5 mm steel

Hole Pattern: 13/16" square holes with 3/16" frets.

Diffuser: Commercial surface mount ceiling diffuser.

* Neck sizes are available in 3" increments

Finish: Electrostatic polyester powder coated. White

Required Construction

Face Material:

- 2.5 mm steel(Std)
- 2 mm steel
- 3 mm steel
- Other

Hole Pattern:

- 13/16" square holes with 3/16" frets(std)
- 3/4"x3/4" square holes with 1/4" frets
- 1.2"x1.2" holes with 3/16" frets.
- Other

Finish :

- White
- Other

Other Material:

- SCD-A all aluminum construction. 2 mm thick face, aluminum diffuser
- SCD-SS all stainless steel construction.

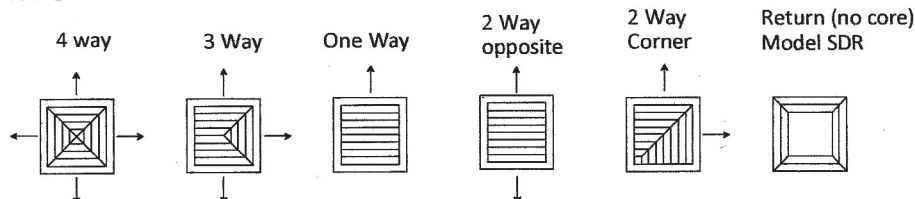
Mounting Option

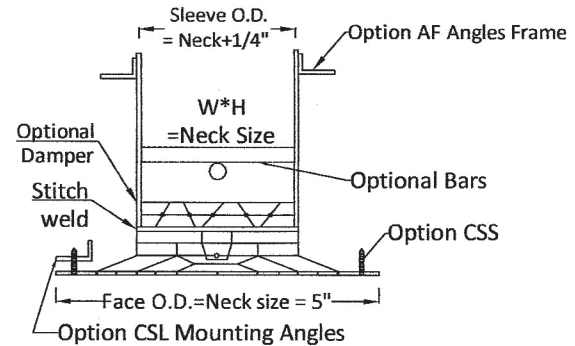
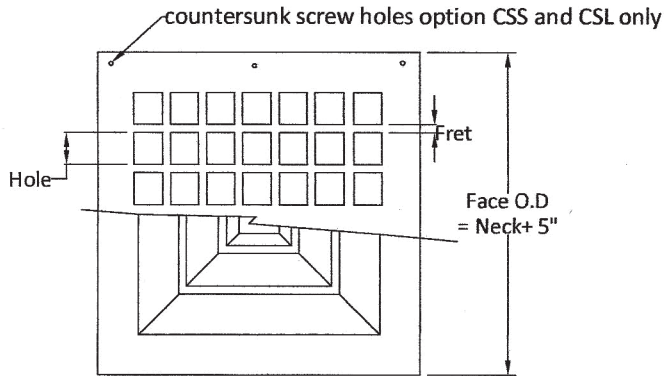
- TW: Diffuser tack welded to rear face plate(Std)
- CSS: Diffuser attaches to face plate with countersunk screw holes in face 10" o.c and #10-24x1" long security machine screws threaded into nuts on rear of face plate.

Accessories

- OBD: Face operated opposed blade damper
- SXR: Square to round transition
- EG: Equalizing grid.

THROW PATTERNS





STANDARD CONSTRUCTION

Face: 2.5 mm thick steel

Hole Pattern: 13/16" square holes with 3/16" frets.

Diffuser: Commercial surface mount ceiling diffuser.

* Neck sizes are available in 3" increments

Finish: Electrostatic polyester powder coated. White

REQUIRED CONSTRUCTION

Face Material:

- 2.5 mm steel(Std)
- 2 mm steel
- 3 mm steel
- Other

Hole Pattern:

- 13/16" square holes with 3/16" frets(std)
- 3/4"x3/4" square holes with 1/4" frets
- 1/2"x1/2" holes with 3/16" frets.
- Other

Finish :

- White(Std)
- Other

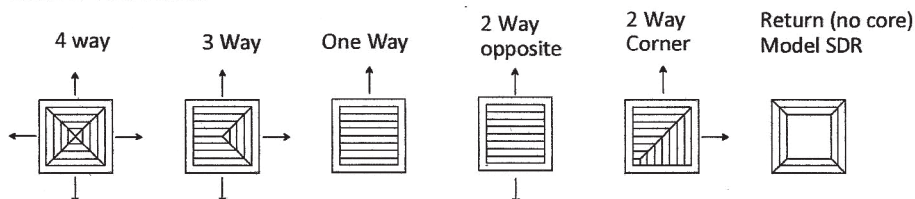
Mounting Options

- CSS: countersunk screw holes in face 10" o.c with #10x2" long security sheet metal screws. Clearance hole in diffuser for securing to structure above diffuser.
- CSL: Countersunk screw holes in face 10" o.c with #10-24x 2" long security machine screws for 1-1/2" maximum ceiling thickness, 1"x1"x1/8" steel angle frame with matching holes and fold over nuts.
- AF: 1"x1"x1/8" angle frame with extended legs on two ends end. Loose for field welding to sleeve.

Accessories

- OBD: Face'operated opposed blade damper .
- SXR: Square to round transition
- EG: Equalizing grid.

THROW PATTERNS



SECURITY CEILING DIFFUSER

PERFORMANCE DATA

Nominal Size		Neck Velocity (fpm)	200			300			400			500			600			700			800		
W (inches)	H (inches)	Static pressure (in. of w.g)	0.02			0.05			0.09			0.15			0.21			0.29			0.38		
6	6	cfm	50			80			100			130			150			180			200		
		NC	<20			<20			<20			23			29			34			38		
		4 way throw	1	2	4	2	3	6	3	4	8	3	5	10	4	6	11	5	7	12	5	8	13
		3 way throw	2	2	5	3	4	8	3	5	9	4	6	12	5	7	14	6	9	15	6	9	16
		2 way throw	2	3	5	3	4	9	4	5	11	5	7	14	5	8	16	7	10	17	7	11	18
		1 way throw	3	4	8	4	6	12	5	8	15	7	10	20	8	12	23	9	14	25	10	15	26
9	9	cfm	110			170			230			280			340			390			450		
		NC	<20			<20			22			29			34			39			44		
		4 way throw	2	3	6	3	4	9	4	6	12	5	7	14	6	9	17	7	10	18	8	12	20
		3 way throw	2	3	7	4	5	11	5	7	15	6	9	18	7	11	21	8	12	22	9	14	24
		2 way throw	3	4	8	4	6	12	6	8	17	7	10	20	8	12	24	9	14	26	11	16	28
		1 way throw	4	6	11	6	9	18	8	12	24	10	14	29	12	18	23	13	20	36	15	23	39
12	12	cfm	200			300			400			500			600			700			800		
		NC	<20			<20			25			32			38			43			47		
		4 way throw	3	4	8	4	6	12	5	8	15	6	10	19	8	12	23	9	14	24	10	15	26
		3 way throw	3	5	9	5	7	14	6	9	19	8	12	24	9	14	28	11	17	30	13	19	32
		2 way throw	4	5	11	5	8	16	7	11	22	9	14	27	11	16	32	13	19	34	15	22	37
		1 way throw	5	8	15	8	12	23	10	15	31	13	19	39	15	23	45	18	27	49	21	31	52
15	15	cfm	310			470			630			780			940			1090			1250		
		NC	<20			<20			28			35			41			46			50		
		4 way throw	3	5	10	5	7	15	7	10	20	8	12	24	10	15	28	11	17	30	13	19	33
		3 way throw	4	6	12	6	9	18	8	12	24	10	15	30	12	18	35	14	21	37	16	24	40
		2 way throw	5	7	14	7	10	21	9	14	28	11	17	34	14	21	40	16	24	43	18	27	46
		1 way throw	6	10	19	10	15	29	13	20	39	16	24	48	19	29	56	23	34	61	29	39	65
18	18	cfm	450			680			900			1130			1350			1580			1800		
		NC	<20			21			31			38			43			48			53		
		4 way throw	4	6	12	6	9	18	8	12	23	10	15	29	12	17	34	14	20	37	15	23	39
		3 way throw	5	7	14	7	11	22	9	14	28	12	18	36	14	21	41	17	25	45	19	28	48
		2 way throw	5	8	16	8	12	25	11	16	33	14	21	41	16	25	48	19	29	52	22	33	55
		1 way throw	8	12	23	12	18	35	15	23	46	19	29	58	23	35	68	27	41	73	31	46	78
21	21	cfm	610			920			1230			1530			1840			2140			2450		
		NC	<20			24			33			40			46			50			55		
		4 way throw	5	7	14	7	10	20	9	14	27	11	17	34	14	20	39	16	24	43	18	27	46
		3 way throw	6	8	17	8	12	25	11	17	33	14	21	41	17	25	48	19	29	52	22	33	56
		2 way throw	6	10	19	10	14	29	13	19	38	16	24	48	19	29	56	22	33	60	26	38	64
		1 way throw	9	14	27	14	20	41	18	27	54	23	34	68	27	41	79	32	47	85	36	54	91
24	24	cfm	800			1200			1600			2000			2400			2800			3200		
		NC	<20			25			34			41			47			52			56		
		4 way throw	5	8	15	8	12	23	10	15	31	13	19	39	15	23	45	18	27	49	21	31	52
		3 way throw	6	9	19	9	14	28	13	19	38	14	24	47	19	28	55	22	33	60	25	38	64
		2 way throw	7	11	22	11	16	33	15	22	44	18	27	55	22	33	64	26	38	69	29	44	74
		1 way throw	10	15	31	15	23	46	21	31	62	26	39	77	31	46	90	36	54	97	41	62	104

Data determined in accordance with ANSI/ASHRAE Standard 70-1991

Velocity-Neck Velocity,fpm

Ps-Static Pressure, inches w.g

Throw-Distance, in feet, to terminal velocities Vt=150,100,50fpm, respectively

3 Way-Throw distances shown are for the two opposite directions. The other throw distance is equal to the 4 way throw distance.

NC-Noise Criteria with 10 dB room attenuation.