

Architectural Adjustable Square Ceiling Diffusers

(SKAA, SKAJ)

The Carnes SK Series adjustable plaque diffuser is an aesthetically pleasing diffuser that offers a great deal of versatility. The adjustable plaque also offers clean, sleek lines and blends well with the ceiling tile system.

The SK adjustable plaque diffusers offer a full 360° discharge with minimum sound levels. The plaque face is adjustable via a spring loaded counter sunk screw in each corner to allow for a wide range of adjustability.

The SKAJ and SK have an adjustment hinge attached to all four sides to adjust length of throws and individual blow patterns.

Here are just a few features of the adjustable plaque:

- Wide range of sizes - Square sizes in 3" increments from 6 x 6 through 18 x 18.
- Extremely adjustable - from the up/down adjustability of the face to the optional directional control hinges on each side for individual adjustment.
- Electrocoat acrylic baked enamel finish process insures complete coverage.
- Steel construction with optional opposed blade dampers and auxiliary frame.



Application

The Carnes SK Series adjustable plaque diffusers offer a clean, unobtrusive look that satisfies both functional and aesthetic needs. These diffusers are a perfect fit for VAV system applications with the combination of functionality, versatility and low sound levels.

Standard Features

- Available for lay in or surface mount applications.
- Square neck sizes available in 3" increments from 6 x 6 through 18 x 18.
- Panel offers hemmed edge for safety and sturdiness.
- All units are available with a square to round transition.
- Standard steel construction.
- SKAJ offers hinged deflector on all four sides for total adjustability.
- Standard finish is electrocoat acrylic baked enamel.
- Standard color is #11 Carnes bright white.

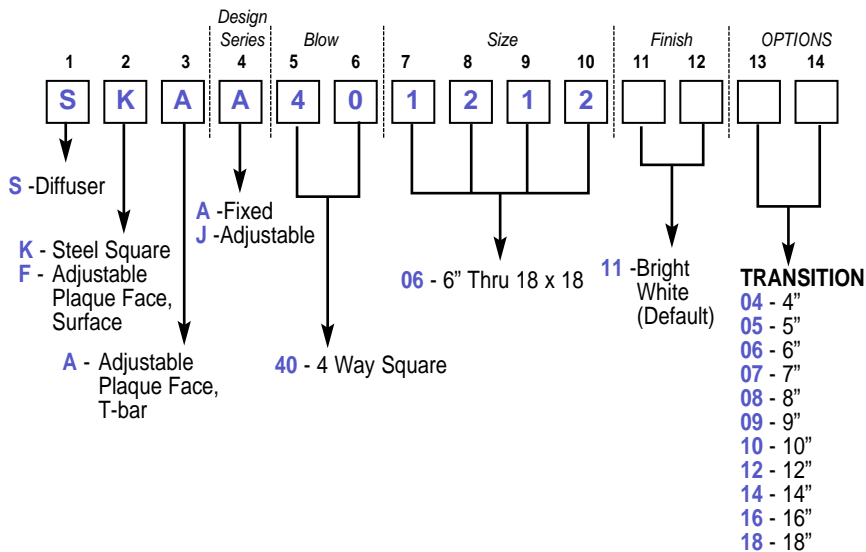
Optional Features

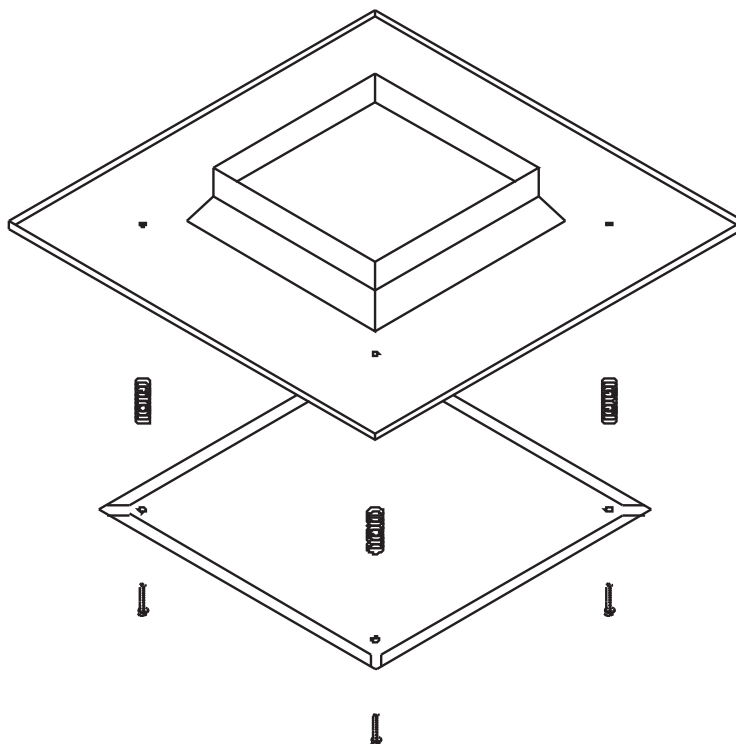
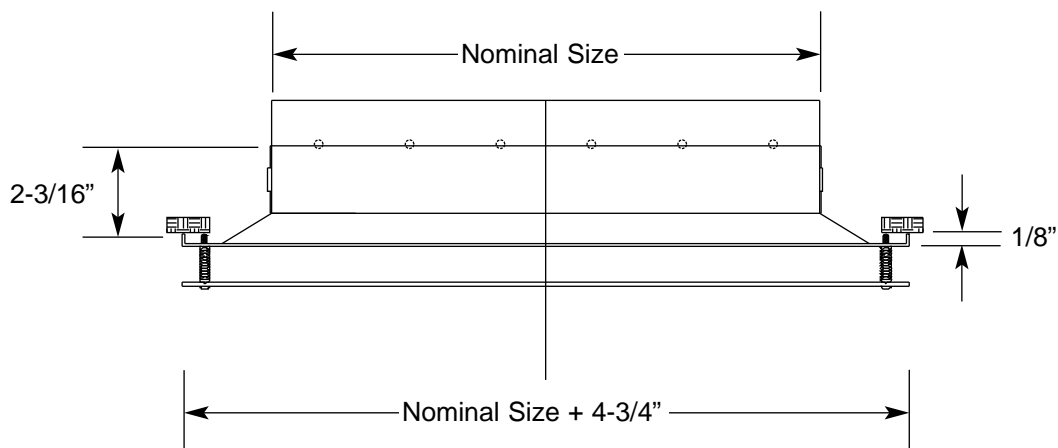
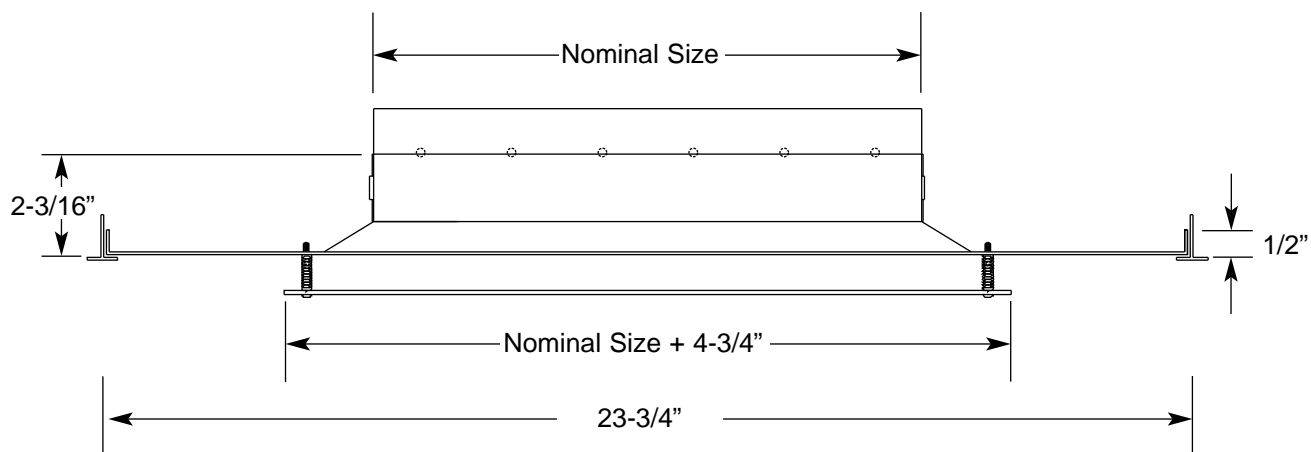
- KXKA opposed blade damper (p. A434).
- Auxiliary frame KXFAA or KXFAS (p. A447).



Specialty Products

Model Numbering System





Neck Size	Plaque Opening	Duct Velocity, FPM	160	240	320	400	600	800	1000	1200	1400
		Velocity Pressure	0.002	0.004	0.006	0.01	0.025	0.04	0.066	0.095	0.128
6 x 6	1-1/4"	CFM	40	60	80	100	150	200	250	300	350
		Total Pressure				0.00	0.00	0.00	0.00	0.00	0.00
		Throw				1	3	5	6	7	9
		NC				12	17	19	23	28	34
6 x 6	1"	CFM	40	60	80	100	150	200	250	300	350
		Total Pressure			0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Throw			2	2	4	6	7	8	10
		NC			--	12	17	19	23	29	35
6 x 6	3/4"	CFM	40	60	80	100	150	200	250	300	350
		Total Pressure	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Throw	2	2	3	3	5	7	8	9	10
		NC	--	--	--	13	18	20	24	30	36
6 x 6	1/2"	CFM	40	60	80	100	150	200	250	300	350
		Total Pressure	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Throw	3	3	4	4	6	8	9	10	11
		NC	--	--	--	14	19	21	24	33	38

Neck Size	Plaque Opening	Duct Velocity, FPM	89	133	178	267	356	444	533	711	800
		Velocity Pressure	0.001	0.001	0.002	0.004	0.008	0.013	0.019	0.033	0.042
9 x 9	1-1/4"	CFM	50	75	100	150	200	250	300	400	450
		Total Pressure				0.00	0.00	0.00	0.00	0.11	0.00
		Throw				2	3	5	6	8	9
		NC				11	16	19	21	30	35
9 x 9	1"	CFM	50	75	100	150	200	250	300	400	450
		Total Pressure			0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Throw			2	4	5	6	7	10	11
		NC			--	12	17	19	22	31	37
9 x 9	3/4"	CFM	50	75	100	150	200	250	300	400	450
		Total Pressure		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Throw		2	3	5	6	7	9	11	13
		NC		--	--	13	18	20	23	33	38
9 x 9	1/2"	CFM	50	75	100	150	200	250	300	400	450
		Total Pressure	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Throw	2	3	4	6	7	9	10	13	14
		NC	--	--	--	14	19	21	24	35	39

Neck Size	Plaque Opening	Duct Velocity, FPM	50	100	150	200	250	300	400	500	600
		Velocity Pressure	0.001	0.001	0.002	0.003	0.004	0.006	0.01	0.017	0.024
12 x 12	1-1/4"	CFM	50	100	150	200	250	300	400	500	550
		Total Pressure			0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Throw			2	4	6	8	11	13	14
		NC			--	12	16	19	24	31	36
12 x 12	1"	CFM	50	100	150	200	250	300	400	500	550
		Total Pressure		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Throw		2	4	5	7	8	10	13	14
		NC		--	--	12	16	19	24	32	36
12 x 12	3/4"	CFM	50	100	150	200	250	300	400	500	550
		Total Pressure		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Throw		3	5	6	7	9	11	14	15
		NC				13	17	20	25	33	38
12 x 12	1/2"	CFM	50	100	150	200	250	300	400	500	550
		Total Pressure	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Throw	2	4	6	7	8	10	12	15	17
		NC	--	--	--	14	19	21	28	37	42

Notes on Performance Data

- Performance data is based on tests conducted in accordance with ANSI/ASHRAE Standard 70-1991.
- Actual performance in the field may vary.
- Tests were conducted in isothermal conditions.
- Sound levels are based on a room absorption of 10 db re 10⁻¹² watts.

Notes on Units of Measure Used

- Air flow is given in cubic feet per minute (CFM).
- Static Pressure is given in inches of water (w.g.).
- Sound data is given in NC.
- Throws are given in feet to terminal velocity of 50 fpm.

Neck Size	Plaque Opening	Duct Velocity, FPM	32	64	96	128	192	256	320	384	448
		Velocity Pressure	0.001	0.001	0.001	0.001	0.002	0.004	0.006	0.009	0.014
15 x 15	1-1/4"	CFM	50	100	150	200	300	400	500	600	700
		Total Pressure				0.00	0.00	0.00	0.00	0.00	0.00
		Throw				3	5	6	9	10	12
		NC				--	17	20	25	31	37
15 x 15	1"	CFM	50	100	150	200	300	400	500	600	700
		Total Pressure			0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Throw			5	7	9	10	14	16	18
		NC			--	12	18	21	26	33	39
15 x 15	3/4"	CFM	50	100	150	200	300	400	500	600	700
		Total Pressure		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Throw		2	4	5	8	10	13	15	17
		NC		--	--	--	14	19	24	30	38
15 x 15	1/2"	CFM	50	100	150	200	300	400	500	600	700
		Total Pressure	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Throw	2	3	5	6	9	12	15	18	22
		NC	--	--	--	14	19	24	30	38	46

Neck Size	Plaque Opening	Duct Velocity, FPM	22	44	89	133	178	222	267	311	356
		Velocity Pressure	0.001	0.001	0.001	0.001	0.002	0.003	0.005	0.006	0.008
18 x 18	1-1/4"	CFM	50	100	200	300	400	500	600	700	800
		Total Pressure			0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Throw			2	4	6	6	9	11	13
		NC			--	13	19	21	26	31	38
18 x 18	1"	CFM	50	100	200	300	400	500	600	700	800
		Total Pressure			0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Throw			3	5	8	8	10	14	15
		NC			--	13	19	22	27	33	40
18 x 18	3/4"	CFM	50	100	200	300	400	500	600	700	800
		Total Pressure	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Throw	2	3	5	7	9	10	14	16	18
		NC	--	--	--	14	19	23	29	35	43
18 x 18	1/2"	CFM	50	100	200	300	400	500	600	700	800
		Total Pressure	0	0	0	0	0	0	0	0	0
		Throw	2	4	6	9	12	14	17	19	22
		NC	--	--	9	15	20	25	31	38	47

Notes on Performance Data

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