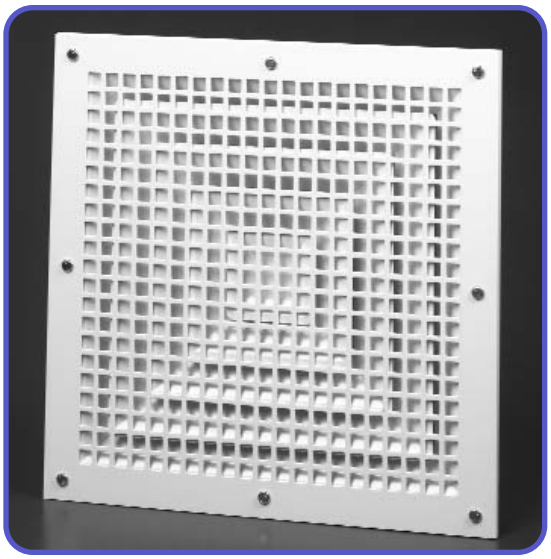


Application

Security Ceiling Diffusers are used in minimum security areas to provide ceiling based air distribution. They are versatile (with a wide range of neck sizes and blow patterns) and allow the use of standard air distribution design procedures.

Standard Features

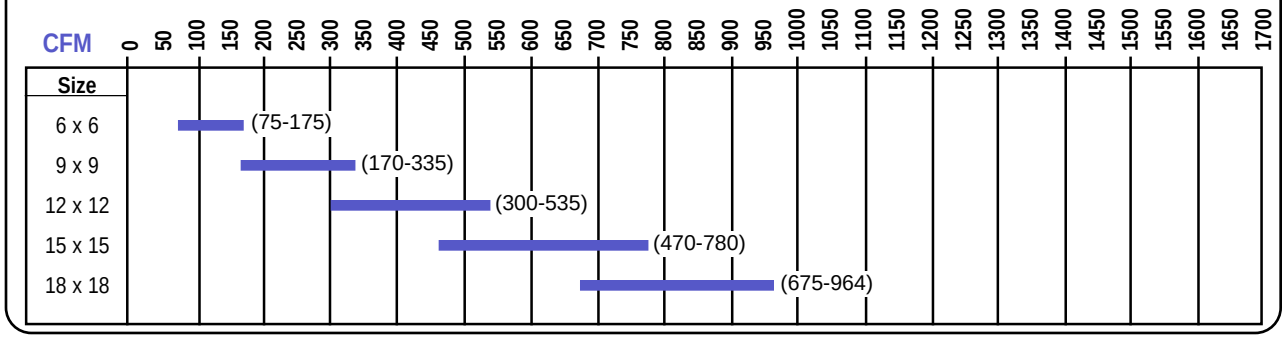
- Square/rectangular steel diffuser model SKFA.
- Face plate is 12 gauge hot-rolled steel.
- Hole pattern in face plate is 1/2" square holes on 11/16" centers. Optional 13/16" square holes.
- #14 x 1-1/2" snake-eyes head security sheet metal screws are provided as standard.
- Standard finish is electrocoat acrylic baked enamel.
- Standard color is #11 bright white.

Optional Features

- When specified, square-to-round transition is shipped installed.
- When specified, opposed blade model KXKA is shipped non-installed.

Quick Select Chart

This shows units with:
- A maximum NC/RC of 35.
- A minimum duct velocity of 300 FPM.



Model Numbering System

1	2	3	4	5	6	7	8	9	10	11	12	OPTIONS 13	14	15
S	S	P	A	4	0	0	9	0	9	1	1			

S - Diffuser

DESIGN SERIES
- **SP** - 1/2" Sq. Holes
- **SK** - 13/16" Sq. Holes

BLOW PATTERN
- **10** - Square 1-Way
- **20** - Square 2-Way Opposite
- **25** - Square 2-Way Corner
- **30** - Square 3-Way
- **40** - Square 4-Way
- **11** - Rectangular 1-Way Long
- **12** - Rectangular 1-Way Short
- **20** - Rectangular 2-Way Opposite Long
- **22** - Rectangular 2-Way Opposite Short
- **26** - Rectangular 2-Way Corner Short Left
- **27** - Rectangular 2-Way Corner Short Right
- **31** - Rectangular 3-Way One Long Side
- **32** - Rectangular 3-Way One Short Side
- **41** - Rectangular 4-Way

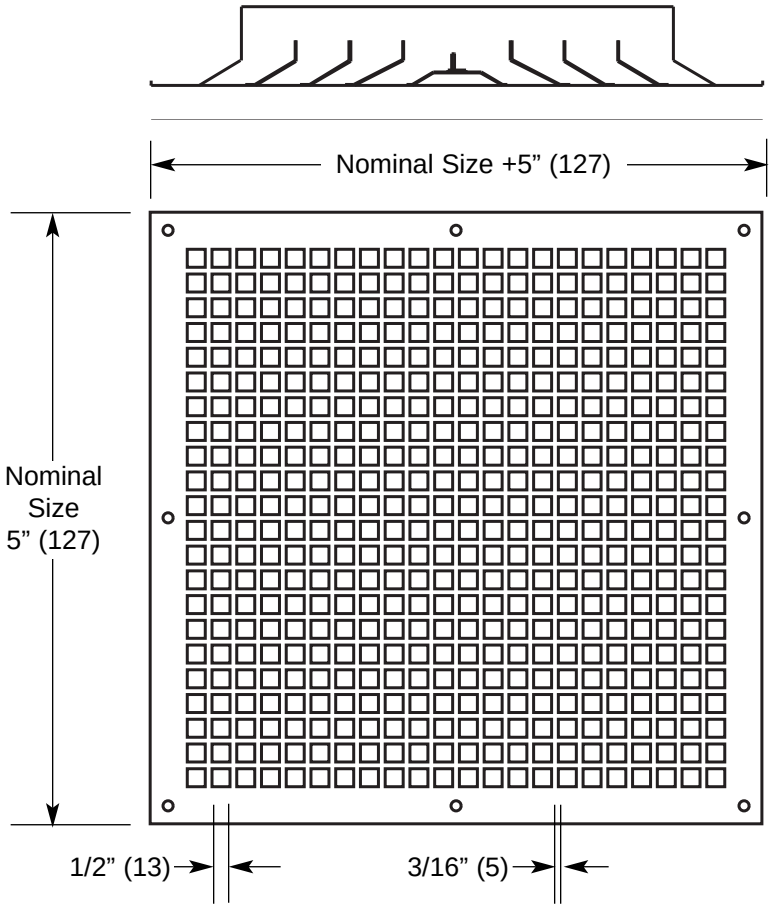
NOMINAL SIZE
06 - 6" Through **24** - 24" In 3" Increments

NOMINAL SIZE
06 - 6" Through **24** - 24" In 3" Increments

FINISH
11 - Bright White (Default)

DAMPER
D - Damper

SQUARE-TO-ROUND TRANSITION
- **04** - 4"
- **05** - 5"
- **06** - 6"
- **07** - 7"
- **08** - 8"
- **09** - 9"
- **10** - 10"
- **12** - 12"
- **14** - 14"
- **16** - 16"
- **18** - 18"
- **20** - 20"
- **21** - 21"

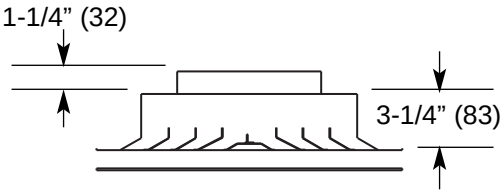


Notes:

- Diffuser construction is steel.
- Face plate construction is 12 gauge hot rolled steel.
- Standard finish is electrocoat acrylic baked enamel.
- Standard color is #11 bright white.
- Unit is supplied with #14 x 1-1/2” (38) snake-eyes head sheet metal security screws.
- Diffuser square inlet I.D. is duct size +1/8” (3) to fit over standard duct.
- Recommended ceiling opening is Nominal Size plus 2” (51).
- Standard nominal square and rectangular neck sizes are 6” - 24” in 3” increments.

Optional Square-to-Round Transition

- When specified this ships pre-installed.
- The round inlet connection is 1/8” (3) undersized to fit inside standard duct.



	Duct Velocity	100	200	300	400	500	600	700
	Velocity Pressure	0.001	0.003	0.006	0.010	0.016	0.022	0.030
	Static Pressure	0.005	0.020	0.045	0.080	0.120	0.174	0.246
	Total Pressure	0.006	0.023	0.051	0.090	0.136	0.196	0.276
6" x 6"	Air Flow	**25**	**50**	**75**	**100**	**125**	**150**	**175**
	Sound Level	<10	<10	<10	20	23	30	34
	Throw	2	3	5	8	10	11	13
9" x 9"	Air Flow	**55**	**110**	**170**	**225**	**280**	**335**	**390**
	Sound Level	<10	<10	13	21	30	34	40
	Throw	2	6	8	13	14	16	19
12" x 12"	Air Flow	**100**	**200**	**300**	**400**	**500**	**600**	**700**
	Sound Level	<10	<10	18	25	32	40	44
	Throw	2	7	10	13	17	21	24
15" x 15"	Air Flow	**155**	**310**	**470**	**625**	**780**	**935**	**1090**
	Sound Level	<10	<10	21	30	35	42	48
	Throw	5	8	13	14	22	26	30
18" x 18"	Air Flow	**225**	**450**	**675**	**900**	**1125**	**1350**	**1575**
	Sound Level	<10	12	24	33	40	46	50
	Throw	5	12	16	23	27	31	46
21" x 21"	Air Flow	**305**	**610**	**920**	**1225**	**1530**	**1835**	**2140**
	Sound Level	<10	14	27	36	42	48	54
	Throw	6	13	20	25	29	36	43
24" x 24"	Air Flow	**400**	**800**	**1200**	**1600**	**2000**	**2400**	**2800**
	Sound Level	<10	16	29	37	45	51	55
	Throw	6	15	22	30	36	42	48

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.
- Testing was conducted in isothermal conditions.
- Sound level values are based on room absorption of 10 db re 10^{-12} watts.
- Throws provided are for 4-way blow patterns.

Units of Measure Used

- Velocity is given in Feet per Minute (fpm).
- Pressure is given in Inches of Water (w.g.).
- Flows are given in Cubic Feet per Minute (CFM).
- Throw is given in feet to a terminal velocity of 50 fpm.
- Sound data is given in Noise Criteria (NC).