

RSPA44 - Diffuser



Meets NIC requirements for Suicide Prevention and approved by the New York State Office of Mental Health.

Application

The RSPA44 is used in security applications where there is concern that the occupant may attempt suicide. The double-bend louvers overlap to provide a core which makes it difficult to pass string or wire through. **This is not a substitute for proper security practices.** Because of the core design, access to a balancing damper is not possible, and so all balancing should be done via a duct-mounted damper.

Standard Features

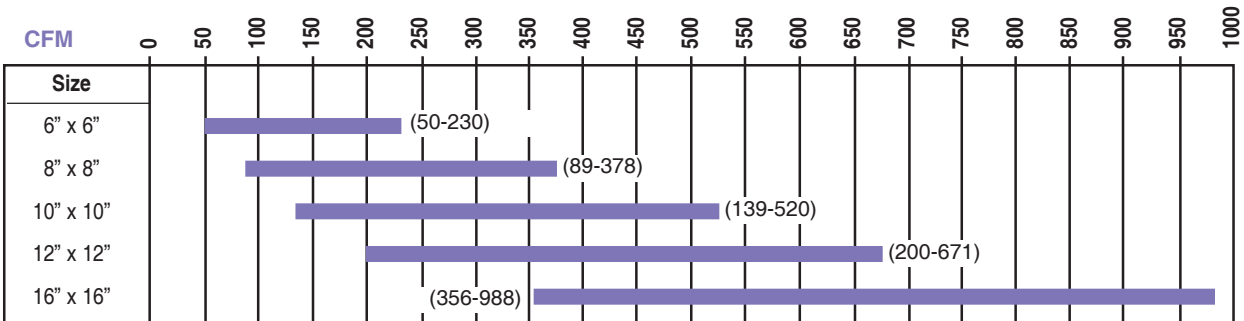
- Face and sleeve are 12 gauge hot-rolled steel.
- Core has 12 gauge hot-rolled steel louvers, which are formed at two 90° angles, and placed on 3/8" centers.
- 1-1/2" x 1-1/2" x 1/8" wall angles are provided as standard, in four loose pieces for field welding.
- Standard finish is electrocoat acrylic baked enamel.
- Standard color is #11 bright white.
- Available in 1, 2, 3 and 4 way blow patterns.
- 4-way blow pattern is standard. Other blow patterns are available. Please contact factory for pricing and availability.

Optional Features

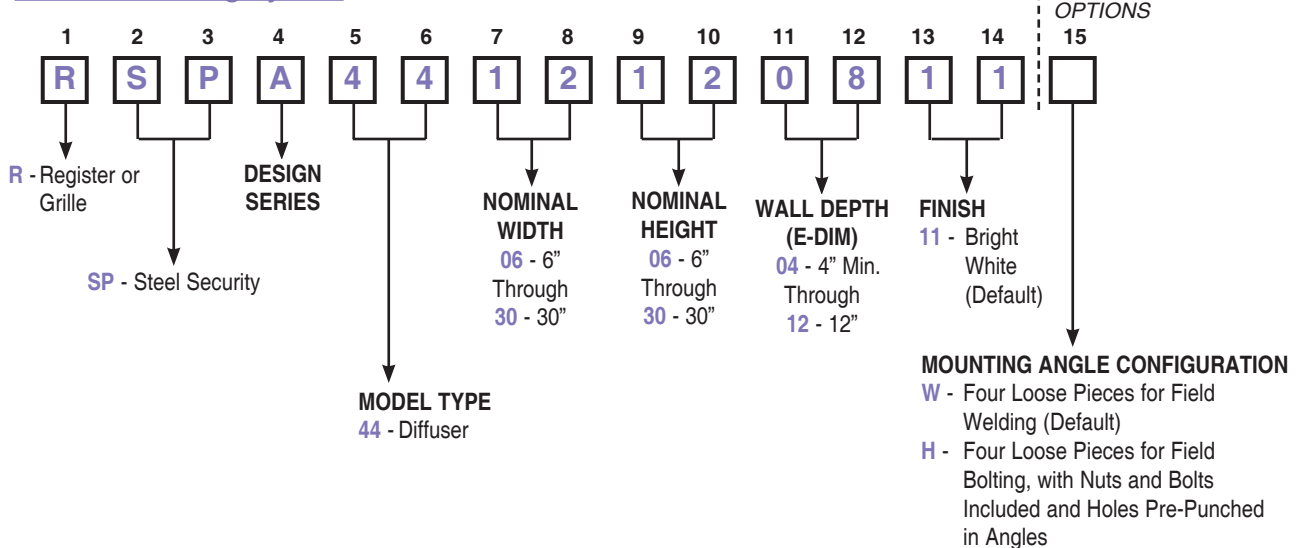
- When specified, Option "H" provides the wall angles in four loose pieces, for field bolting, with mounting holes pre-punched in the angles, and security nuts and bolts provided.

Quick Select Chart

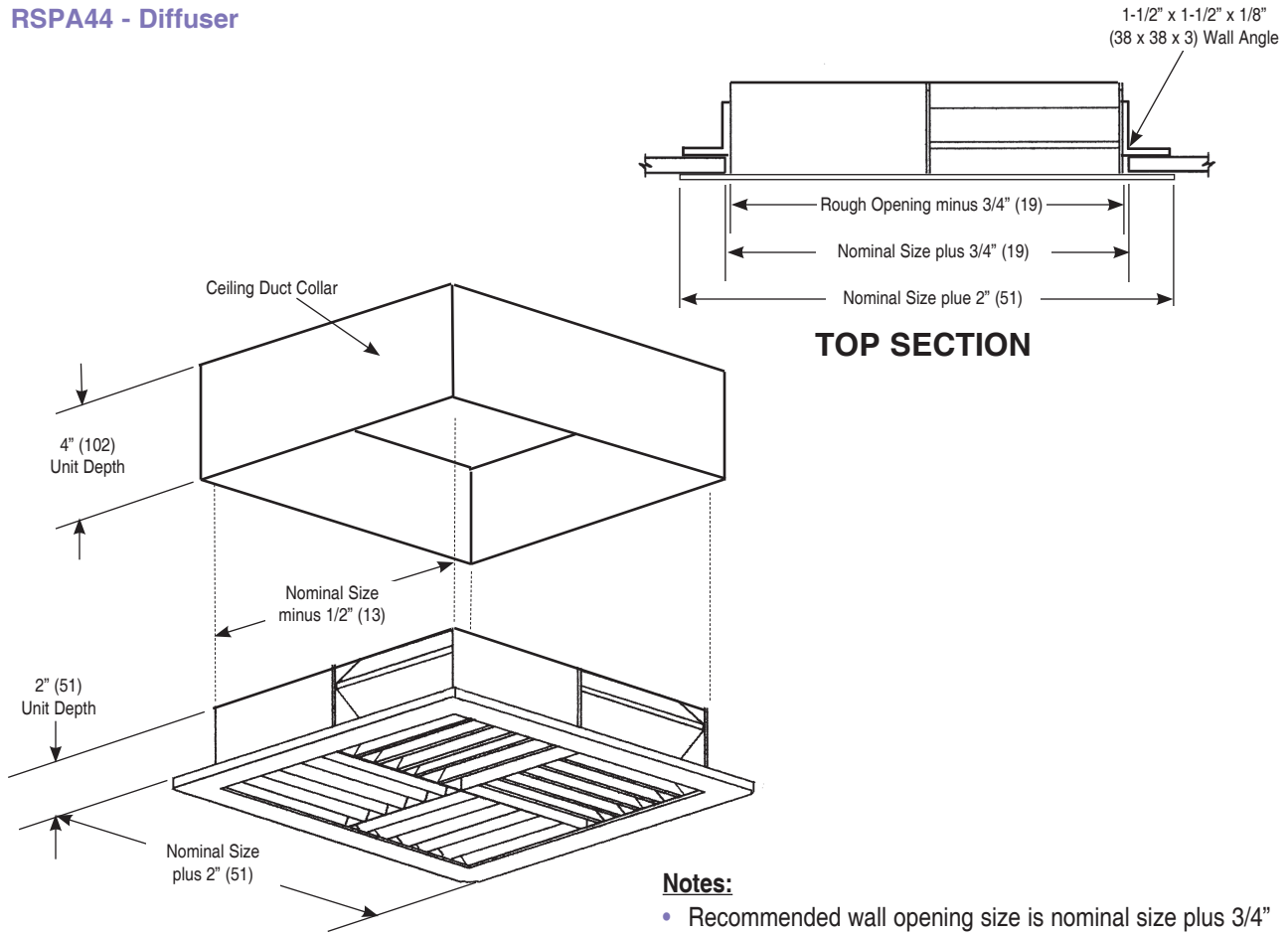
This shows units with: • A maximum NC/RC of 35.
• A minimum duct velocity of 200 FPM.



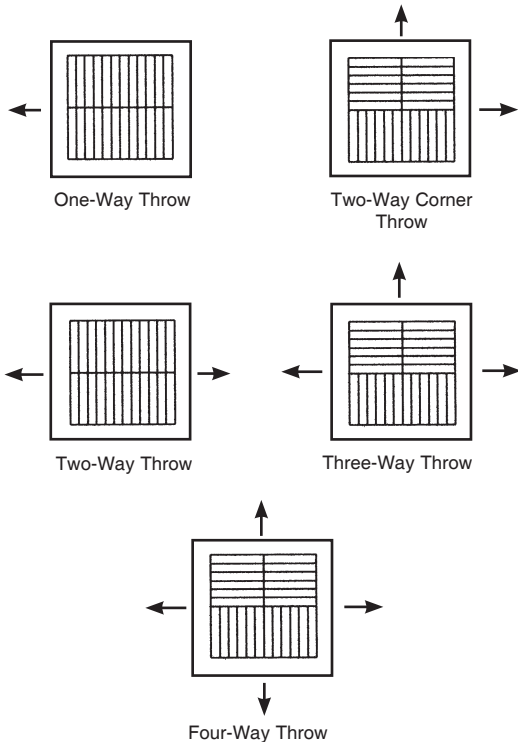
Model Numbering System



RSPA44 - Diffuser



THROW PATTERNS



Notes:

- Recommended wall opening size is nominal size plus 3/4" (19).
- Standard finish is electrocoat acrylic baked enamel.
- Standard color is #11 Bright White.
- Metric dimensions are given in millimeters.
- 4-way blow pattern is standard. Other blow patterns are available. Please contact factory for pricing and availability.

Notes on Construction:

1. Sleeve and Face are constructed of 12 gauge hot rolled steel.
2. Wall angles are 1-1/2" x 1-1/2 x 1/8" (38 x 38 x 3) hot rolled steel. They are shipped in four pieces for field welding or mounted with taper proof screws.
3. Unit consists of four cores continuously welded to the face plate with a welded one piece sheave that fits over the core and attaches to the duct sleeve. Individual cores shall be enclosed by shroud.
4. Core consists of:
 - 12 gauge hot rolled steel louvers with 90° angles to create a "Z" shape.
 - Louvers are installed on 3/8" (10) centers, which provide a labyrinth to deter passage of rope, twine or string.

RSPA44 - Diffuser

Nom. Size	Nom. Area (ft²)	Duct Velocity Velocity Press. Total Press.	300 0.006 0.081	400 0.010 0.142	500 0.016 0.219	600 0.022 0.314	700 0.031 0.424	800 0.040 0.556	900 0.051 0.600	1000 .062 .862
6" x 6"	.25	Flow, cfm	75	100	125	150	175	200	225	250
		4 Way Blow Throw, ft.	8	9	11	11	12	12	13	14
		2 Way Blow Throw, ft.	10	11	12	12	13	14	14	15
		NC	12	15	18	21	25	29	23	38
8" x 8"	.44	Flow, cfm	133	178	222	267	311	356	400	444
		4 Way Blow Throw, ft.	12	13	17	18	19	21	21	21
		2 Way Blow Throw, ft.	14	16	20	21	22	24	24	25
		NC	13	16	20	24	28	33	37	41
10" x 10"	.69	Flow, cfm	208	278	347	417	486	556	625	694
		4 Way Blow Throw, ft.	14	16	17	19	19	20	21	22
		2 Way Blow Throw, ft.	16	19	20	32	22	24	24	25
		NC	14	18	22	27	32	38	43	50
12" x 12"	1.00	Flow, cfm	300	400	500	600	700	800	900	1000
		4 Way Blow Throw, ft.	15	17	18	19	20	21	22	23
		2 Way Blow Throw, ft.	16	19	20	21	22	24	24	25
		NC	15	19	25	30	37	44	51	58
14" x 14"	1.36	Flow, cfm	408	544	681	817	952	1088	1224	1361
		4 Way Blow Throw, ft.	16	18	19	21	22	23	24	24
		2 Way Blow Throw, ft.	21	24	25	27	28	30	31	31
		NC	16	21	28	35	42	51	60	71
16" x 16"	1.78	Flow, cfm	533	711	889	1067	1244	1422	1600	1778
		4 Way Blow Throw, ft.	19	21	23	24	25	26	27	28
		2 Way Blow Throw, ft.	25	28	30	31	33	34	35	36
		NC	17	23	30	39	48	58	69	81
18" x 18"	2.25	Flow, cfm	675	900	1125	1350	1575	1800	2025	2250
		4 Way Blow Throw, ft.	23	25	26	27	29	30	31	32
		2 Way Blow Throw, ft.	29	32	34	36	37	39	40	41
		NC	18	25	33	43	53	65	79	94

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 a room absorption of 10db re 10⁻¹² watts.

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 both Noise Criteria (NC).

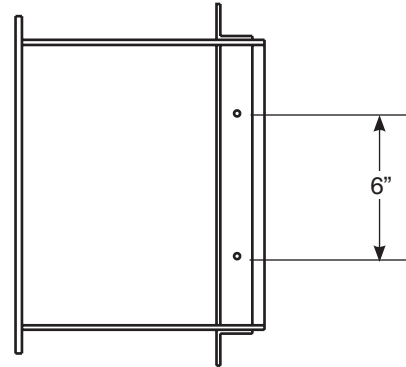
Option “H” - Mounting Angles for Field Bolting onto Wall R&G

Application

The RSPA 51 group is used in security applications where there is a concern that the occupant may attempt suicide. The 3/16” perforated hole pattern is designed to deter passage of any string through the face and back. This hole pattern also prevents any chance to hide contraband. This is not a substitute for proper security practices. Because of the perforated hole pattern, the opposed blade damper needs to be accessed from the back side.

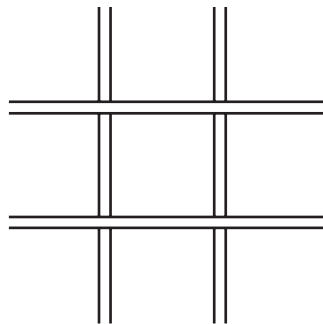
Features

- Mounting angles are provided with holes punched on 6” centers.
- There are a minimum of 2 holes per mounting angle.
- The bolts provided are #1/4-20 x 1” snake-eyes head.
- The nuts provided are 1/4-20 self-locking hex nuts.

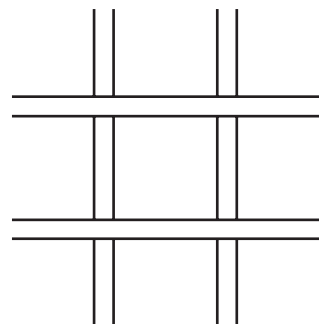


Barrier Bar Options

Option B - 1/2” round bar on 6” centers.



Option C - 3/4” round bar on 6” centers.



Option D - 3/4” round bar vertical on 6” centers through horizontal bars (3/8” x 2-1/2”) on 12” centers. All intersections are welded.

