

# SECURITY PRODUCTS



**N** **Nailor**  
Industries Inc.

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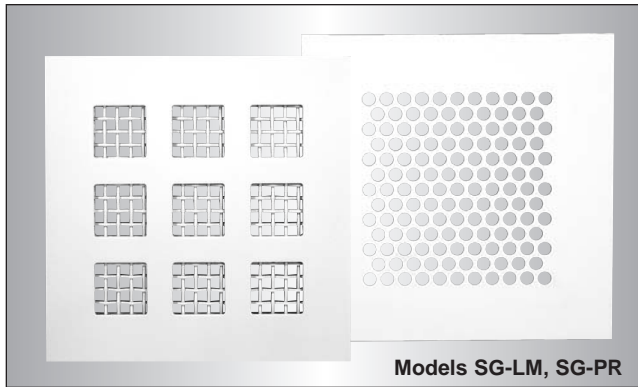
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**GENERAL PRODUCT OVERVIEW**

**Security Products**

**Nailor** offers a complete line of Security Grilles, Registers and Diffusers. The product line includes grilles and registers for maximum, medium and minimum security and a diffuser for minimum security applications. The grilles and registers that are for use in the highest security areas are constructed from very heavy gauge welded steel that provides exceptional strength and durability. A wide range of options and accessories are available that can enhance the strength and performance of the grilles and registers.

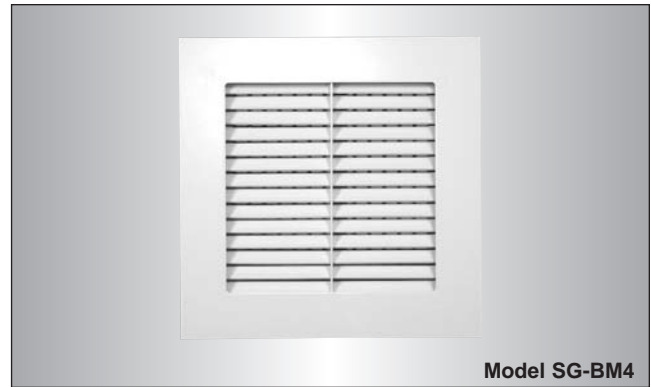


Models SG-LM, SG-PR

**Maximum Security Grilles**

Nailor's maximum security grilles and registers are constructed from heavy gauge welded steel and are for use in areas where maximum security is vital. These grilles can be used for both supply and return air applications.

- |                              |             |                    |
|------------------------------|-------------|--------------------|
| <b>Lattice Face w/Mesh</b>   | Model SG-LM | <b>See page H5</b> |
| <b>Perforated Face Plate</b> | Model SG-PR | <b>See page H8</b> |

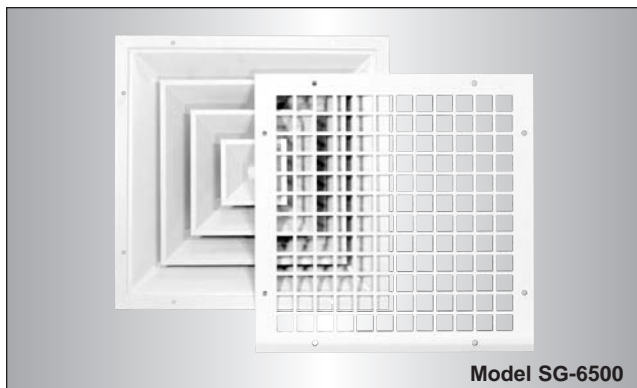


Model SG-BM4

**Medium to Minimum Security Grilles**

This sidewall bar grille is constructed from 14 gauge steel and has blades that are fixed at 40° or 0° deflection. The louvered blade and steel mesh screen are reinforced with heavy gauge steel mullions and a welded sleeve. These grilles can be used for both supply and return air applications.

- |                       |              |                     |
|-----------------------|--------------|---------------------|
| <b>40° Deflection</b> | Model SG-BM4 | <b>See page H11</b> |
| <b>0° Deflection</b>  | Model SG-BMZ | <b>See page H11</b> |

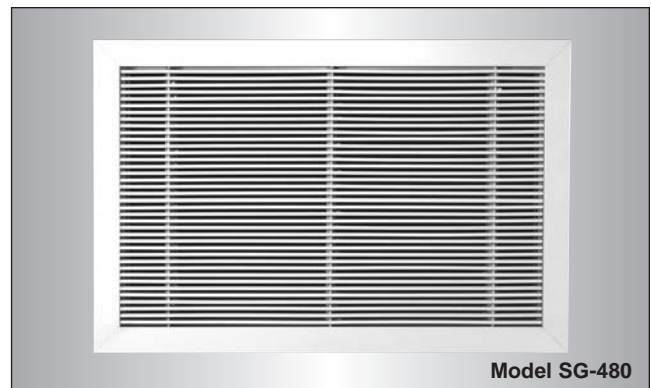


Model SG-6500

**Minimum Security Diffusers**

These diffusers are a combination of a louvered pattern diffuser with a lattice face plate for minimum security protection. The diffusers are available with a choice of 1, 2, 3 or 4-way throw patterns. Use these diffusers in applications where constant supervision occurs.

- |                 |               |                     |
|-----------------|---------------|---------------------|
| <b>Steel</b>    | Model SG-6500 | <b>See page H13</b> |
| <b>Aluminum</b> | Model SG-6200 | <b>See page H13</b> |
- Suffix '-O' adds an opposed blade damper.

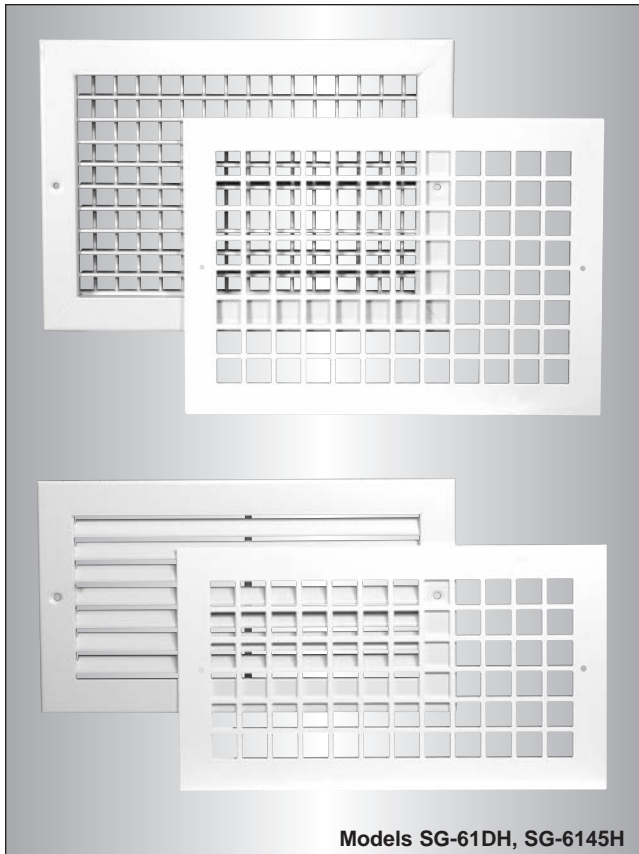


Model SG-480

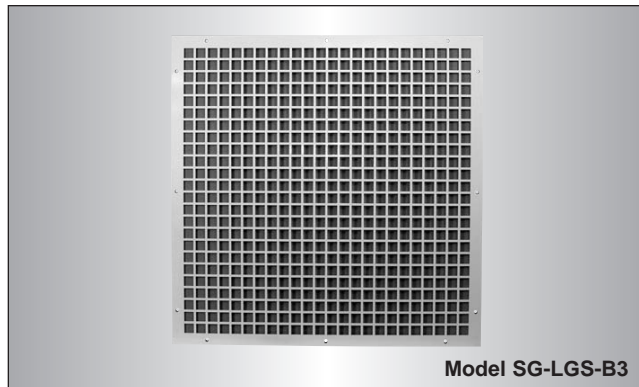
**Minimum Security/Bar Grilles and Registers**

These minimum security/bar grilles are all aluminum rust-proof construction, which makes them ideal for use in showers and wet areas. The frame and blades are welded for extra strength. These grilles have 0° deflection blades that are spaced on either 1/2" (13) or 1/4" (6) centers.

- |                          |              |                     |
|--------------------------|--------------|---------------------|
| <b>1/2" (13) Spacing</b> | Model SG-280 | <b>See page H15</b> |
| <b>1/4" (6) Spacing</b>  | Model SG-480 | <b>See page H15</b> |



Models SG-61DH, SG-6145H



Model SG-LGS-B3

**Minimum Security Lattice Face Grilles**

These lattice face grilles are offered as an economical return air grille for minimum security applications. They are available in heavy gauge steel or heavy gauge aluminum with a selection of hole pattern designs.

<b>Steel</b>	Model SG-LGS	<b>See page H21</b>
<b>Aluminum</b>	Model SG-LGA	<b>See page H21</b>

**Minimum Security Grilles and Registers**

These louvered blade grilles and registers are paired up with a lattice face plate to meet minimum security requirements. They are available for both supply and return air applications with a choice of steel or aluminum construction.

**Double Deflection Supply** **See page H17**

**Steel** - Models SG-61DV, SG-61DH

**Aluminum** - Models SG-51DV, SG-51DH

Suffix '-O' adds an opposed blade damper.

**Single Deflection Supply** **See page H18**

**Steel** - Models SG-61SV, SG-61SH

**Aluminum** - Models SG-51SV, SG-51SH

Suffix '-O' adds an opposed blade damper.

**Fixed, 45° Deflection** **See page H19**

**Steel** - Models SG-6145H, SG-6145V

**Aluminum** - Models SG-5145H, SG-5145V

Suffix '-O' adds an opposed blade damper.

**Fixed, 0° Deflection** **See page H20**

**Steel** - Models SG-61FH, SG-61FV

**Aluminum** - Models SG-51FH, SG-51FV

Suffix '-O' adds an opposed blade damper.



Options A and J Shown

**Options and Accessories**

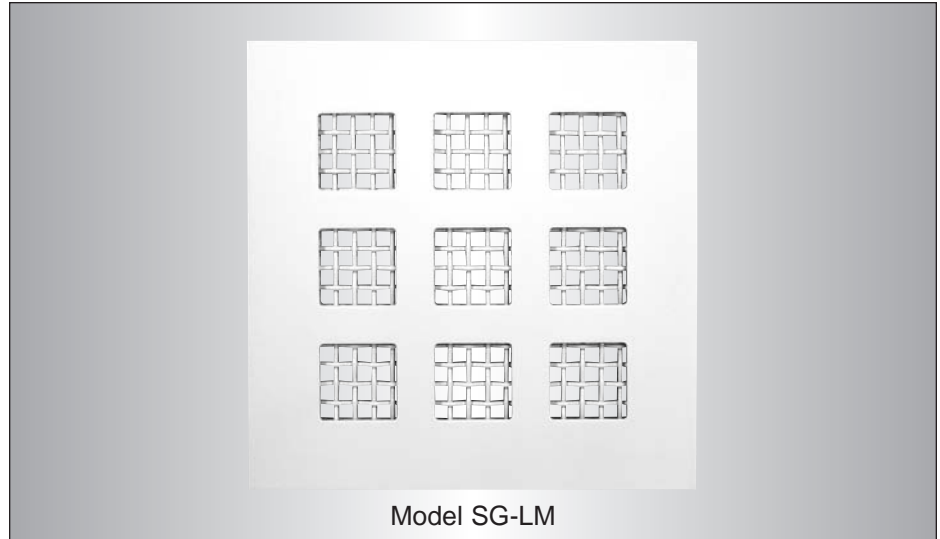
A selection of mounting angles, security bars, opposed blade dampers and directional blades are the enhancements that are offered on the maximum and medium security grilles.

<b>Mounting Angles</b>	<b>See page H23</b>
<b>Masonry Anchor Tabs</b>	<b>See page H23</b>
<b>Security Bars</b>	<b>See page H23</b>
<b>Opposed Blade Dampers</b>	<b>See page H24</b>
<b>Directional Blades</b>	<b>See page H24</b>

## MAXIMUM SECURITY GRILLES AND REGISTERS

- SUPPLY OR RETURN
- STEEL CONSTRUCTION
- SQUARE LATTICE FACE
- MESH SCREEN

**Model:**  
**SG-LM**



**Model SG-LM** meets the industry standard for maximum security applications. It can be used as a supply or return grille where maximum security is paramount, supervision is minimal and absolute grille integrity must be maintained. These units are constructed of welded heavy gauge steel that allows the grille to become an integral part of the wall structure, providing additional strength.

### FEATURES:

- Face Plate: 3/16" (5) steel lattice plate with 2" (51) square holes and 1" (25) fret bars.
- Backer Plate: 3/16" (5) steel lattice plate standard to match face.
- Sleeve: 3/16" (5) steel, of length required, with continuously welded seams and stitch welded to face plate.
- Protective screen sandwiched between face and backer plate.

10 gauge x 3/8" (10) clear opening (No. 2 mesh) woven steel wire.

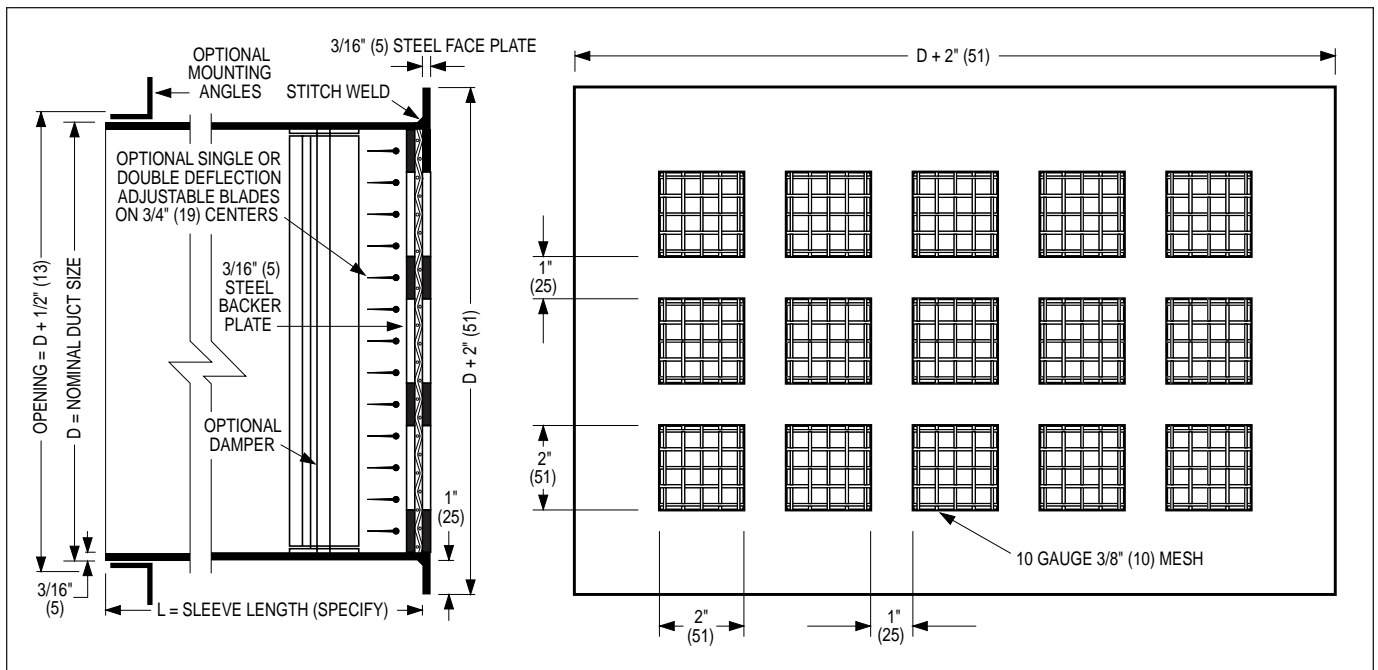
• Standard finish is prime coat for field painting.

### Options:

- Mounting Angles: Option A, B or C. See page H23.
- Masonry Anchor Tabs: Option D. See page H23.
- Additional Security Barrier: Option E, F, G or H. See page H23.

• Opposed Blade Damper: Option J, Face operator (screwdriver slot). Option K, Rear operator (screwdriver slot). See page H24.

• Adjustable Blade Packs: Single deflection: Option L, horizontal blades. Option M, vertical blades. Double deflection: Option N, horizontal front blades. Option P, vertical front blades. See page H24.



**H**

**SECURITY PRODUCTS**



## Performance Data Model SG-LM • Supply

SECURITY PRODUCTS

Neck Size	FPM TP	100 0.011	150 0.026	200 0.046	250 0.072	300 0.103	350 0.141	400 0.184	450 0.232	500 0.287
6 x 6	CFM	25	38	50	63	75	88	100	113	125
	NC	—	—	—	14	19	23	27	30	33
	T	2-3-6	3-5-10	4-6-12	5-8-13	6-10-14	8-11-15	9-12-17	10-12-17	11-12-18
9 x 6	CFM	38	56	75	94	113	131	150	169	188
	NC	—	—	11	16	21	25	29	32	35
	T	2-4-8	4-6-12	5-8-14	7-10-16	8-12-17	9-14-19	11-14-20	12-15-21	13-16-23
12 x 6	CFM	50	75	100	125	150	175	200	225	250
	NC	—	—	13	19	25	29	32	34	38
	T	3-4-9	4-7-13	6-9-16	8-12-18	9-14-20	11-15-22	13-16-24	14-19-25	15-18-26
15 x 6	CFM	63	94	125	156	188	219	250	281	313
	NC	—	—	15	21	26	30	34	37	40
	T	3-5-10	5-8-15	7-10-18	9-12-21	10-15-23	12-17-25	13-18-26	15-19-28	17-21-29
18 x 6	CFM	75	113	150	188	225	263	300	338	375
	NC	—	—	16	22	27	31	35	38	41
	T	3-5-11	5-8-16	7-11-20	9-13-23	11-16-25	13-19-27	14-20-29	16-21-30	18-23-32
21 x 6	CFM	88	131	175	219	263	306	350	394	438
	NC	—	—	17	23	28	32	35	39	41
	T	4-6-12	6-9-18	8-12-22	10-15-25	12-18-27	14-20-29	17-22-31	18-23-33	20-25-34
24 x 6	CFM	100	150	200	250	300	350	400	450	500
	NC	—	—	17	23	38	32	36	39	42
	T	4-6-13	6-10-19	9-13-24	11-16-26	13-19-29	15-22-31	17-24-33	19-25-35	22-26-37
9 x 9	CFM	56	84	113	141	169	197	225	253	281
	NC	—	—	14	20	25	29	33	36	39
	T	3-5-10	5-7-14	6-10-17	8-12-19	10-14-21	12-16-23	13-17-25	14-18-27	16-19-28
12 x 9	CFM	75	113	150	188	225	263	300	338	375
	NC	—	—	16	22	27	31	35	38	41
	T	3-5-11	5-8-16	7-11-20	9-14-23	11-16-25	13-19-27	14-20-29	16-21-30	18-23-32
15 x 9	CFM	94	141	188	234	281	328	375	422	469
	NC	—	—	16	23	28	32	36	39	42
	T	4-6-12	6-10-19	8-12-23	11-15-26	12-19-28	14-21-30	16-23-32	19-24-34	21-26-36
18 x 9	CFM	113	169	225	281	338	394	450	506	563
	NC	—	—	18	24	29	33	37	40	43
	T	4-7-13	7-10-20	9-13-25	12-17-28	13-20-30	16-23-33	18-25-35	20-21-37	23-28-39
21 x 9	CFM	131	197	263	328	394	459	525	591	656
	NC	—	—	19	25	30	34	35	41	44
	T	5-7-14	7-11-22	10-14-27	13-18-30	14-22-33	17-25-35	20-27-38	22-29-40	25-30-43
24 x 9	CFM	150	225	300	375	450	525	600	675	750
	NC	—	—	19	25	30	35	38	41	44
	T	5-8-15	8-12-24	11-15-29	13-20-32	15-24-35	18-27-38	21-29-41	24-30-43	26-32-46
12 x 12	CFM	100	150	200	250	300	350	400	450	500
	NC	—	—	17	23	28	32	36	39	42
	T	4-6-13	6-10-19	9-12-24	11-16-26	13-19-29	15-22-32	17-24-34	19-25-36	21-26-38
15 x 12	CFM	125	188	250	313	375	438	500	563	625
	NC	—	11	18	24	29	34	37	40	43
	T	5-7-13	7-11-22	10-14-26	12-18-30	14-22-33	17-25-35	19-26-38	22-28-40	24-30-42
18 x 12	CFM	150	225	300	375	450	525	600	675	750
	NC	—	12	19	25	30	35	38	41	44
	T	5-8-15	8-12-24	11-15-29	13-20-33	15-24-36	18-27-39	21-29-41	24-30-43	26-32-46
21 x 12	CFM	175	263	350	438	525	613	700	788	875
	NC	—	12	20	26	31	35	39	42	45
	T	6-9-17	9-12-26	12-17-31	14-21-34	17-26-38	20-29-41	23-31-44	26-33-47	29-34-50
24 x 12	CFM	200	300	400	500	600	700	800	900	1000
	NC	—	13	21	27	32	36	40	43	46
	T	6-9-18	9-13-28	12-18-33	15-23-37	18-28-41	21-31-44	25-33-48	28-35-50	30-37-52

**CFM** - cubic feet per minute  
**FPM** - feet per minute velocity  
**TP** - total pressure - inches w.g.  
**T** - throw in feet  
**NC** - Noise Criteria (values) based on 10 dB room absorption, re 10<sup>-12</sup> watts.

**Performance Notes:**  
 1. Performance data is based on supply air and standard construction.  
 2. Throws are given at 150, 100 and 50 fpm terminal velocities under isothermal conditions.  
 3. Return Performance:

Negative static pressure approximates to listed total pressure.  
 Add + 2 to listed NC value.  
 4. Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70 – 2006.

## Performance Data

### Model SG-LM • Supply

Neck Size	FPM TP	100 0.011	150 0.026	200 0.046	250 0.072	300 0.103	350 0.141	400 0.184	450 0.232	500 0.287
15 x 15	CFM	156	234	313	391	469	547	625	703	781
	NC	—	12	20	26	31	35	38	42	44
	T	5-8-16	8-12-24	11-16-30	13-20-32	16-24-37	19-28-39	22-30-42	24-31-44	27-32-47
18 x 15	CFM	188	281	375	469	563	656	750	844	938
	NC	—	13	21	27	32	36	39	43	45
	T	6-9-17	9-13-27	12-17-32	14-22-36	17-27-39	21-30-43	24-32-46	27-34-49	30-36-52
21 x 15	CFM	219	328	438	547	656	766	875	984	1094
	NC	—	13	21	27	32	37	40	43	46
	T	6-10-19	10-14-29	13-19-34	16-24-39	19-29-43	22-32-46	26-34-50	29-37-53	31-39-56
24 x 15	CFM	250	375	500	625	750	875	1000	1125	1250
	NC	—	14	22	28	33	37	41	42	47
	T	7-10-20	10-15-30	13-20-37	17-26-42	20-30-46	24-34-50	28-37-53	30-39-57	34-42-60
18 x 18	CFM	225	338	450	563	675	788	900	1013	1125
	NC	—	14	22	28	33	37	40	43	46
	T	6-10-19	10-14-29	13-19-35	16-24-39	19-30-43	23-33-47	26-35-51	30-37-54	32-39-57
21 x 18	CFM	263	394	525	656	788	919	1050	1181	1313
	NC	—	14	22	28	33	37	41	44	47
	T	7-11-21	11-15-31	14-21-38	17-26-43	21-31-47	25-35-51	28-38-55	31-40-58	34-43-62
24 x 18	CFM	300	450	600	750	900	1050	1200	1350	1500
	NC	—	15	23	29	34	38	42	45	48
	T	7-11-22	11-16-33	15-22-41	18-28-46	22-33-51	26-38-55	30-41-59	33-43-62	37-46-66
21 x 21	CFM	306	459	613	766	919	1072	1225	1378	1531
	NC	—	15	23	29	34	38	42	45	48
	T	8-12-24	12-17-34	15-23-41	19-29-46	22-34-51	27-39-55	30-41-59	34-44-63	37-46-67
24 x 21	CFM	350	525	700	875	1050	1225	1400	1575	1750
	NC	—	16	24	30	35	39	43	46	49
	T	8-12-25	12-18-36	16-24-44	20-30-50	24-36-55	29-41-59	33-45-64	36-47-68	40-50-71
24 x 24	CFM	400	600	800	1000	1200	1400	1600	1800	2000
	NC	—	17	25	31	36	40	43	46	49
	T	9-13-26	13-19-39	17-26-48	22-33-53	26-39-59	31-44-64	35-48-68	39-51-73	43-53-77

- CFM** - cubic feet per minute
- FPM** - feet per minute velocity
- TP** - total pressure - inches w.g.
- T** - throw in feet
- NC** - Noise Criteria (values) based on 10 dB room absorption, re 10<sup>-12</sup> watts.

#### Performance Notes:

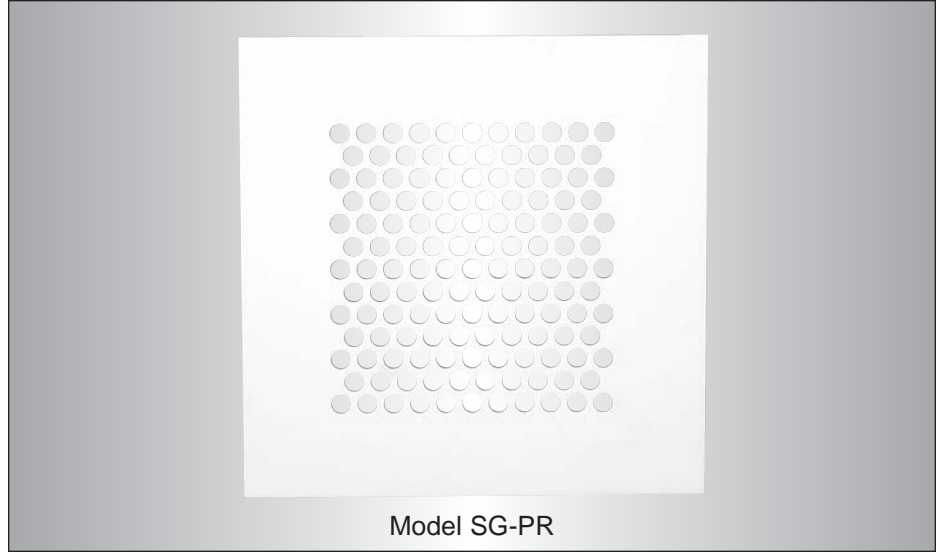
1. Performance data is based on supply air and standard construction.
2. Throws are given at 150, 100 and 50 fpm terminal velocities under isothermal conditions.
3. Return Performance:

- Negative static pressure approximates to listed total pressure.
- Add + 2 to listed NC value.
- 4. Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70 – 2006.

## MAXIMUM SECURITY GRILLES AND REGISTERS

- SUPPLY OR RETURN
- STEEL CONSTRUCTION
- PERFORATED FACE

**Model:**  
**SG-PR**



Model SG-PR

**Model SG-PR** is utilized in maximum security areas. Its design features a perforated face plate with 5/16" (8) dia. holes that allows a greater effective free area, but still upholds the required level of security and safety. It can be used as a supply or return grille. These units are constructed of welded heavy gauge steel that allows the grille to become an integral part of the wall structure, providing additional strength.

### FEATURES:

- Face Plate: 3/16" (5) steel lattice plate with 5/16" (8) dia. holes on staggered 7/16" (11) centers.
- Sleeve: 3/16" (5) steel, of length required, with continuously welded seams and stitch welded to face plate.
- Standard finish is prime coat for field painting.

### Options:

- Mounting Angles: Option A, B or C. See page H23.
- Masonry Anchor Tabs: Option D. See page H23.
- Additional Security Barrier: Option E, F, G or H. See page H23.
- Opposed Blade Damper: Option J, Face operator (screwdriver slot).

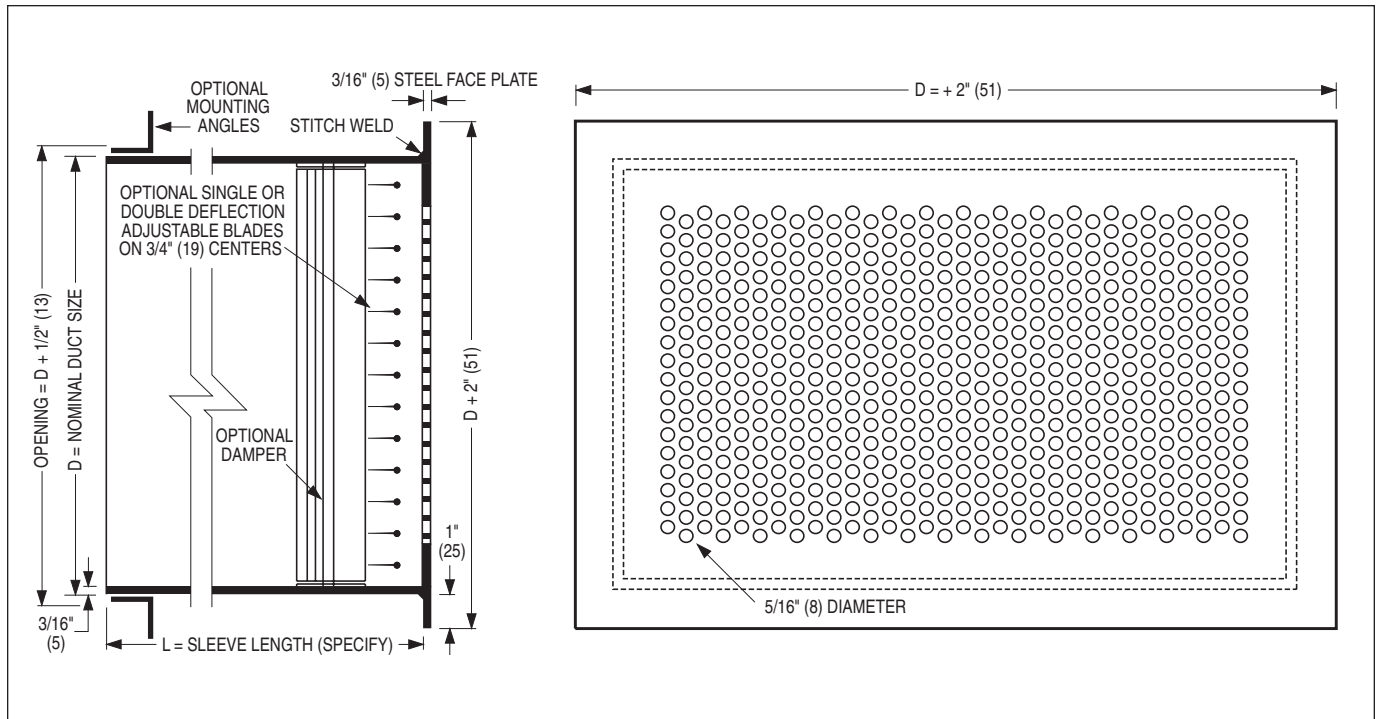
Option K, Rear operator (screwdriver slot). See page H24.

### Adjustable Blade Packs:

Single deflection: Option L, horizontal blades. Option M, vertical blades. Double deflection: Option N, horizontal front blades. Option P, vertical front blades. See page H24.

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SECURITY PRODUCTS





## Performance Data

### Model SG-PR • Supply

Neck Size	FPM TP	100 0.005	150 0.011	200 0.020	250 0.031	300 0.044	350 0.060	400 0.079	450 0.100	500 0.123
6 x 6	CFM	25	38	50	63	75	88	100	113	125
	NC	—	—	—	—	12	16	20	24	27
	T	1-2-5	2-3-7	3-5-10	4-6-12	5-7-12	5-8-13	6-10-14	7-11-15	8-12-16
9 x 6	CFM	38	56	75	94	113	131	150	169	188
	NC	—	—	—	—	14	18	22	25	29
	T	2-3-6	3-4-9	4-6-12	5-7-14	6-9-15	7-10-17	8-12-18	9-13-19	10-14-20
12 x 6	CFM	50	75	100	125	150	175	200	225	250
	NC	—	—	—	—	15	19	23	27	30
	T	2-3-7	3-5-10	4-7-13	6-9-16	7-10-18	8-12-10	9-13-21	10-15-22	12-16-24
15 x 6	CFM	63	94	125	156	188	219	250	281	313
	NC	—	—	—	—	16	20	24	28	31
	T	2-4-8	4-6-12	5-8-17	6-10-18	8-12-20	9-13-22	10-15-24	12-17-25	13-18-27
18 x 6	CFM	75	113	150	188	225	263	300	338	375
	NC	—	—	—	11	17	21	25	28	32
	T	2-4-8	4-6-12	5-8-16	7-11-20	8-12-22	10-14-24	11-16-26	12-18-28	13-20-29
21 x 6	CFM	88	131	175	219	263	306	350	394	438
	NC	—	—	—	12	18	22	26	29	32
	T	3-4-9	4-7-13	6-9-18	7-11-22	9-13-24	11-15-26	12-18-28	13-20-29	14-22-31
24 x 6	CFM	100	150	200	250	300	350	400	450	500
	NC	—	—	—	12	18	22	26	30	33
	T	3-5-10	5-7-14	6-10-19	8-12-24	10-14-26	11-16-28	13-19-29	14-21-33	16-24-34

9 x 9	CFM	56	84	113	141	169	197	225	253	281
	NC	—	—	—	—	15	20	24	27	30
	T	2-3-7	3-5-11	5-7-14	6-9-17	7-11-19	8-12-21	10-14-22	11-16-24	12-17-25
12 x 9	CFM	75	113	150	188	225	263	300	338	375
	NC	—	—	—	11	17	21	25	28	32
	T	2-4-8	4-6-12	5-8-16	7-11-20	8-12-22	10-14-24	11-16-26	12-18-28	13-20-29
15 x 9	CFM	94	141	188	234	281	328	375	422	469
	NC	—	—	—	12	18	22	26	29	33
	T	3-4-9	4-7-13	6-9-18	8-12-23	9-13-25	11-16-27	12-18-29	13-21-30	15-23-32
18 x 9	CFM	113	169	225	281	338	394	450	506	563
	NC	—	—	—	13	18	23	27	30	33
	T	3-5-10	5-8-15	7-10-20	9-12-25	10-15-28	12-17-29	13-20-31	15-23-33	17-25-35
21 x 9	CFM	131	197	263	328	394	459	525	591	656
	NC	—	—	—	14	19	24	27	31	34
	T	3-5-11	5-8-16	7-11-22	9-13-27	11-16-29	12-19-32	14-22-34	16-25-36	18-27-38
24 x 9	CFM	150	225	300	375	450	525	600	675	750
	NC	—	—	—	14	19	24	28	31	35
	T	4-6-12	6-9-17	8-12-23	10-14-29	12-17-31	13-20-34	15-23-36	17-27-39	19-29-41

12 x 12	CFM	100	150	200	250	300	350	400	450	500
	NC	—	—	—	13	18	22	26	30	33
	T	3-5-10	5-7-14	6-10-19	8-12-24	10-14-26	11-16-28	12-19-29	14-21-31	16-24-33
15 x 12	CFM	125	188	250	313	375	438	500	563	625
	NC	—	—	—	13	19	23	27	31	34
	T	3-5-11	5-8-16	7-11-21	9-13-27	11-16-29	12-18-31	14-21-33	16-24-35	18-27-37
18 x 12	CFM	150	225	300	375	450	525	600	675	750
	NC	—	—	—	14	20	24	28	31	35
	T	4-6-12	6-9-17	8-12-23	10-14-29	12-17-31	13-20-34	15-23-36	17-27-39	19-29-41
21 x 12	CFM	175	263	350	438	525	613	700	788	875
	NC	—	—	—	15	21	25	29	32	35
	T	4-6-12	6-10-19	8-13-25	11-15-31	12-19-34	14-22-37	16-25-39	19-29-42	21-32-44
24 x 12	CFM	200	300	400	500	600	700	800	900	1000
	NC	—	—	—	15	21	25	29	33	36
	T	4-7-13	7-10-20	9-14-27	12-17-33	14-20-36	15-24-39	18-27-42	20-30-45	23-33-48

**CFM** - cubic feet per minute  
**FPM** - feet per minute velocity  
**TP** - total pressure - inches w.g.  
**T** - throw in feet  
**NC** - Noise Criteria (values) based on 10 dB room absorption, re 10<sup>-12</sup> watts.

#### Performance Notes:

1. Performance data is based on supply air and standard construction.
2. Throws are given at 150, 100 and 50 fpm terminal velocities under isothermal conditions.
3. Return Performance:

Negative static pressure approximates to listed total pressure.  
 Add + 2 to listed NC value.  
 4. Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70 – 2006.

## Performance Data

### Model SG-PR • Supply

Neck Size	FPM TP	100 0.011	150 0.026	200 0.046	250 0.072	300 0.103	350 0.141	400 0.184	450 0.232	500 0.287
15 x 15	CFM	156	234	313	391	469	547	625	703	781
	NC	—	—	—	14	20	24	28	32	35
	T	4-6-12	6-9-18	8-12-24	10-14-29	12-18-32	14-21-35	16-24-37	18-27-40	20-29-42
18 x 15	CFM	188	281	375	469	563	656	750	844	938
	NC	—	—	—	15	21	25	29	32	35
	T	4-6-13	6-10-19	9-13-26	11-16-33	13-19-36	15-23-38	17-26-41	19-29-44	22-33-46
21 x 15	CFM	219	328	438	547	656	766	875	984	1094
	NC	—	—	—	15	21	26	30	33	36
	T	5-7-14	7-11-22	10-14-28	12-17-35	14-21-38	16-25-42	19-29-44	21-31-47	24-35-50
24 x 15	CFM	250	375	500	625	750	875	1000	1125	1250
	NC	—	—	—	16	22	26	30	34	37
	T	5-8-15	8-12-23	10-15-29	13-19-37	15-23-41	17-27-44	20-30-48	23-34-51	25-37-54
18 x 18	CFM	225	338	450	563	675	788	900	1013	1125
	NC	—	—	—	16	21	26	30	33	36
	T	5-7-14	7-11-21	10-14-29	11-18-35	14-21-39	16-25-42	19-28-45	21-32-48	24-35-51
21 x 18	CFM	263	394	525	656	788	919	1050	1181	1313
	NC	—	—	11	17	22	26	30	34	37
	T	5-8-15	8-12-23	11-15-31	12-19-38	15-23-42	18-27-46	21-31-49	23-35-52	25-38-55
24 x 18	CFM	300	450	600	750	900	1050	1200	1350	1500
	NC	—	—	11	17	23	27	31	34	38
	T	5-8-16	8-13-25	11-16-34	13-21-41	16-25-45	19-29-49	22-34-52	25-37-56	28-41-59
21 x 21	CFM	306	459	613	766	919	1072	1225	1378	1531
	NC	—	—	—	18	23	27	31	35	38
	T	5-8-16	8-13-25	11-16-33	13-21-41	16-25-46	19-29-49	22-34-53	25-38-56	29-41-59
24 x 21	CFM	350	525	700	875	1050	1225	1400	1575	1750
	NC	—	—	11	18	23	28	32	35	38
	T	6-9-18	9-14-27	12-18-36	14-22-44	18-27-49	21-31-53	24-36-57	27-40-60	30-44-64
24 x 24	CFM	400	600	800	1000	1200	1400	1600	1800	2000
	NC	—	—	12	18	24	28	32	36	39
	T	6-10-19	10-14-29	13-19-39	16-24-48	19-29-52	22-33-57	2-38-61	28-43-65	33-48-68

- CFM** - cubic feet per minute
- FPM** - feet per minute velocity
- TP** - total pressure - inches w.g.
- T** - throw in feet
- NC** - Noise Criteria (values) based on 10 dB room absorption, re 10<sup>-12</sup> watts.

- Performance Notes:**
1. Performance data is based on supply air and standard construction.
  2. Throws are given at 150, 100 and 50 fpm terminal velocities under isothermal conditions.
  3. Return Performance:

- Negative static pressure approximates to listed total pressure.  
Add + 2 to listed NC value.
4. Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70 – 2006.

**SECURITY PRODUCTS**

## MEDIUM/MINIMUM SECURITY GRILLES AND REGISTERS

- SUPPLY OR RETURN
- STEEL CONSTRUCTION
- FIXED BARS

### Models:

**SG-BM4 40° deflection**

**SG-BMZ 0° deflection**



**Model Series SG-BM** may be used for sidewall applications in medium or minimum security areas. Model Series SG-BM's construction includes a stamped, heavy gauge steel, one piece frame welded to the sleeve. The louvered bars and steel mesh screen are reinforced with heavy gauge steel support mullions on 3" (76) maximum centers and welded to a steel sleeve passing through the wall. This design makes the **Model Series SG-BM** the highest quality standard security grille of its kind, providing exceptional strength and impact resistance.

### FEATURES:

- Face Plate (frame) constructed from 14 gauge steel.
- 1/2" (13) x 14 gauge blades on 1/2" (13) centers passing through 14 gauge vertical support bars on 3" (76) centers. Blades are fixed at 40° or 0° deflection.
- Sleeve: 14 gauge steel, of length required, with welded seams and welded to face plate.
- Protective screen behind face bars of 10 gauge x 3/8" (10) clear opening (No.

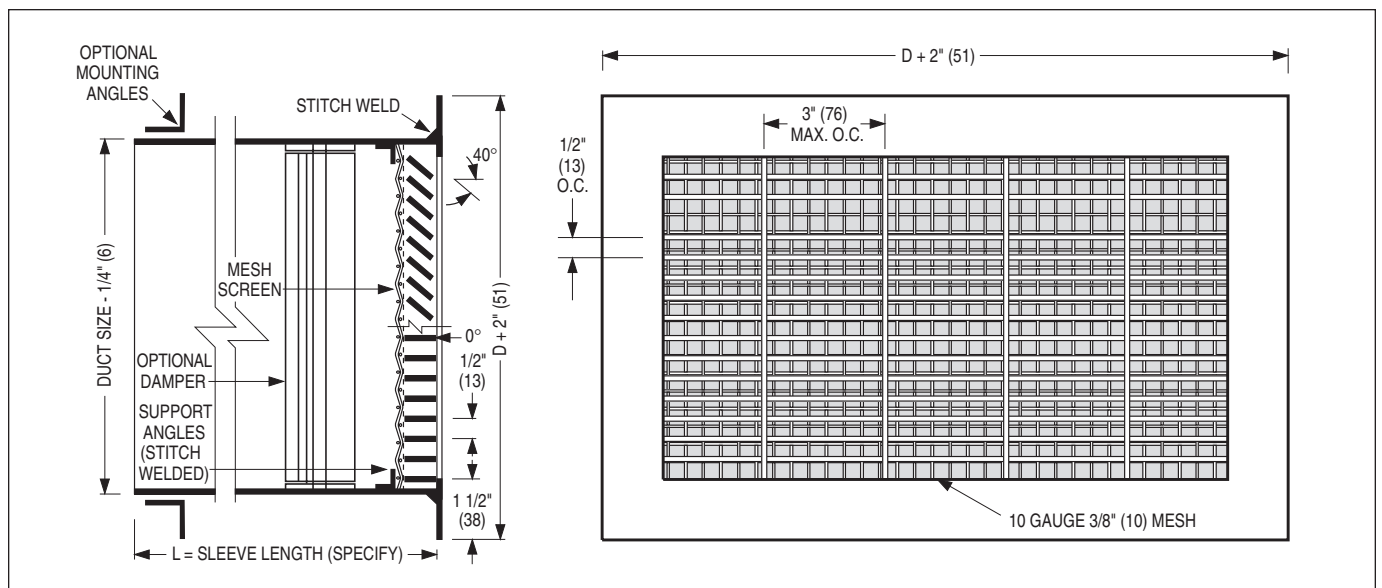
2 mesh) woven steel wire, secured in place by stitch welded support angles.

- Standard finish is prime coat for field painting.

### Options:

- Mounting Angles: Option A, B or C. See page H23.
- Masonry Anchor Tabs: Option D. See page H23.
- Additional Security Barrier: Option E or F. See page H23.

- Opposed Blade Damper: Face operator (lever): Option J, Rear operator (screwdriver slot): Option K, See page H24.



H

SECURITY PRODUCTS

## Performance Data

### Model SG-BM4 • Supply

Core Area Sq. Feet	Nominal Duct Size, Inches		Core Velocity TP	300	400	500	600	800	1000	1200
				.041	.067	.108	.149	.27	.420	.615
.18	8 x 4	6 x 6	CFM	55	70	90	110	145	180	215
			NC	—	—	21	27	36	42	48
			T	5-8-12	7-9-13	9-11-15	10-12-16	11-13-19	13-15-21	14-16-23
.39	18 x 4	12 x 6	CFM	115	155	195	235	310	390	470
			NC	—	—	25	30	39	45	52
			T	8-12-16	11-13-20	12-15-22	14-17-24	16-19-28	17-21-31	19-24-33
.52	24 x 4	16 x 6	CFM	155	210	260	310	415	520	625
			NC	—	—	26	31	40	46	53
			T	9-13-19	12-16-23	13-17-24	16-19-28	18-21-31	21-26-36	24-29-4
1.18	14 x 12	16 x 12	CFM	355	470	590	710	945	1180	1420
			NC	—	23	29	34	43	50	55
			T	13-20-30	17-24-33	22-27-38	25-30-42	29-33-48	32-38-54	34-41-58
1.60	30 x 8	24 x 10	CFM	480	640	800	960	1280	1600	1920
			NC	—	27	33	38	47	53	59
			T	14-22-33	20-29-40	24-31-45	29-35-50	32-40-55	37-45-64	38-48-68
2.78	30 x 14	24 x 18	CFM	835	1110	1320	1676	2220	2780	3340
			NC	—	27	33	38	47	53	60
			T	20-30-46	26-35-55	31-40-58	37-47-69	45-55-78	48-60-85	54-66-91
4.29	30 x 22	28 x 24	CFM	1290	1720	2140	2570	3430	4290	5150
			NC	20	28	35	40	49	55	61
			T	24-36-55	32-42-61	41-51-72	46-56-80	51-62-87	58-71-97	67-82-111

### Model SG-BM4 • Return

Core Area Sq. Feet	Nominal Duct Size, Inches		Core Velocity Neg. SP	200	300	400	500	600	800	1000
				.018	.055	.091	.146	.200	.364	.565
.18	8 x 4	6 x 6	CFM	35	55	70	90	110	145	180
			NC	—	—	—	25	29	36	42
			CFM	80	115	155	195	235	310	390
.39	18 x 4	12 x 6	NC	—	—	25	31	35	42	48
			CFM	105	155	210	260	310	415	520
			NC	—	—	26	32	37	44	49
1.18	14 x 14	16 x 12	CFM	235	355	470	590	710	945	1180
			NC	—	26	32	37	43	50	55
			CFM	320	480	640	800	960	1280	1600
1.60	30 x 8	24 x 10	NC	—	28	34	40	45	52	58
			CFM	555	835	1110	1390	1670	2220	2780
			NC	20	32	38	44	49	56	61
2.78	30 x 14	24 x 18	CFM	860	1290	1720	2140	2570	3430	4290
			NC	24	35	41	47	52	60	64

**CFM** - cubic feet per minute

**TP** - total pressure - inches w.g.

**SP** - static pressure - inches w.g.

**T** - throw in feet

**NC** - Noise Criteria (values) based on 10 dB room absorption, re 10<sup>-12</sup> watts.

Core Velocity is in feet per minute.

#### Performance Notes:

1. Throws are given at 150, 100 and 50 fpm terminal velocities.

2. NC values less than 20 are not shown.

3. Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70 – 2006.

**H**

**SECURITY PRODUCTS**

## MINIMUM SECURITY DIFFUSERS

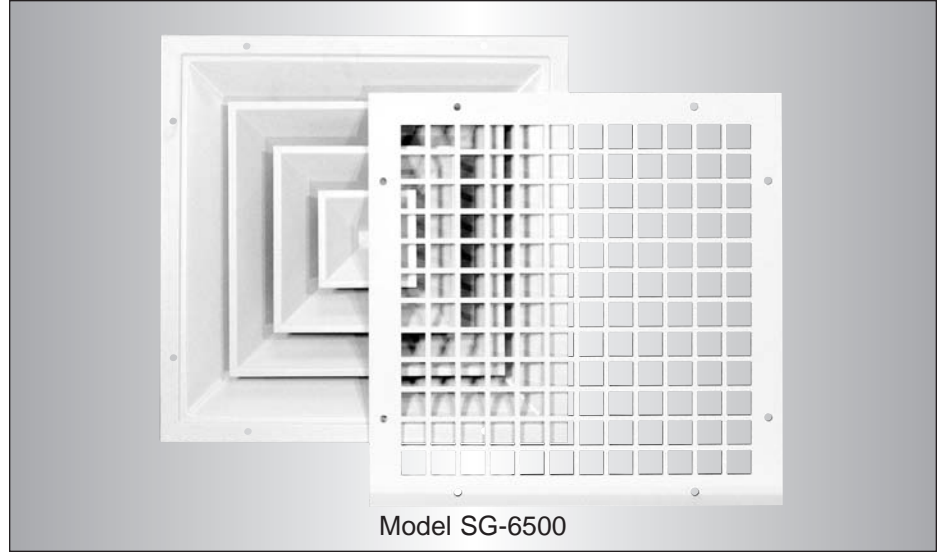
- LOUVERED CORE
- LATTICE FACE
- 1, 2, 3 OR 4-WAY BLOW PATTERN

### Models:

**SG-6500 Steel**

**SG-6200 Aluminum**

- Suffix '-O' adds an opposed blade damper



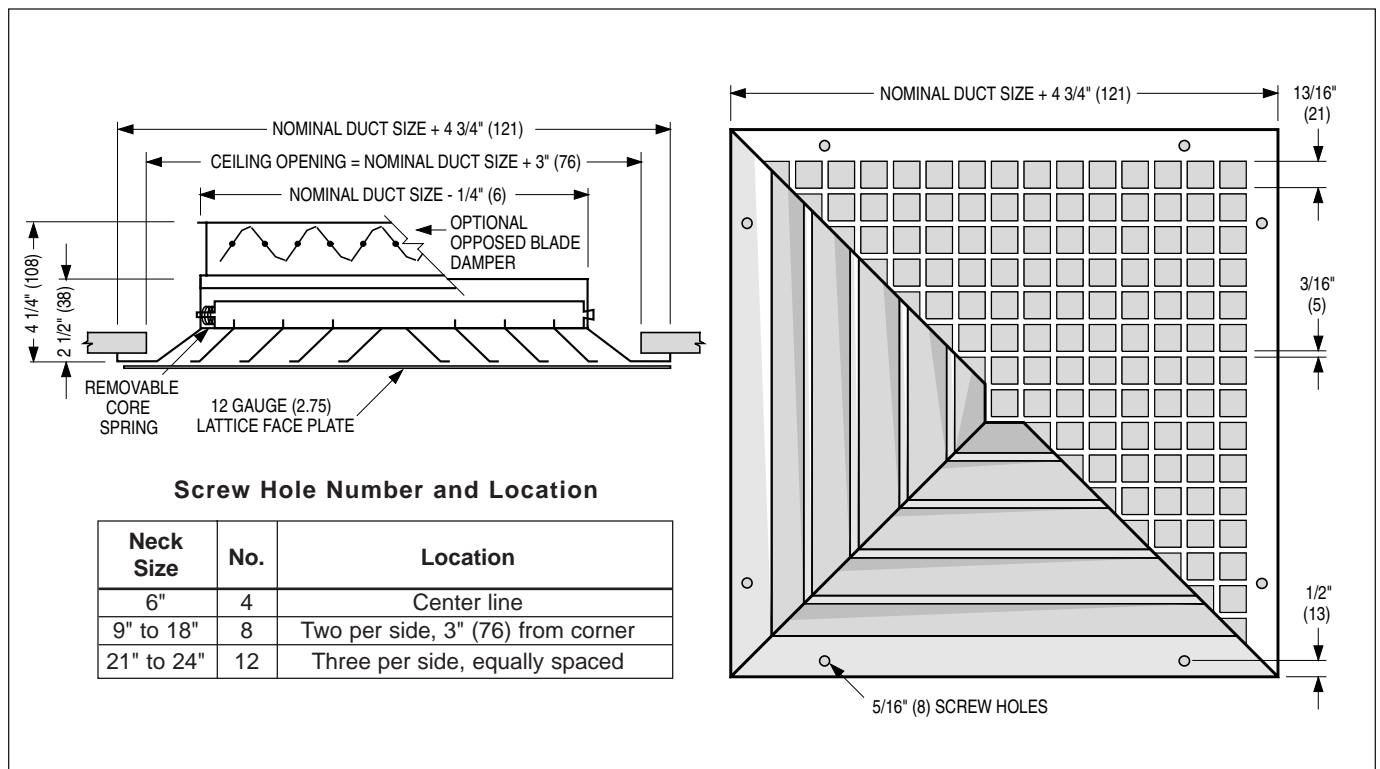
**Model SG-6500** is most often used in minimum security areas such as lobbies and foyers where constant supervision is required. This ceiling diffuser assembly combines the high performance **Model Series 6500 Pattern Diffuser** with a heavy gauge steel lattice grille mounted on the diffuser face. Also available in aluminum construction as **Model SG-6200**.

### FEATURES:

- The **Model Series 6500** or **6200** diffuser with Frame Type S and 1, 2, 3 or 4-way blow pattern.
- Face plate is constructed of 12 gauge steel with 13/16" (21) square holes on 1" (25) centers. 3/16" (5) fret bars.
- Standard finish is AW Appliance White. Other finishes are available.
- Screw holes provided in face plate. Tamper proof/security screws by others to suit local requirements.
- Available in square neck sizes 6" x 6" (152 x 152) through 24" x 24" (610 x 610) in 3" (76) increments.

### Option:

- Opposed blade damper. Adjustable from the face with lattice and core removed.



## Performance Data

### Models SG-6500 and SG-6200

Nominal Neck Size	Neck Velocity, FPM TP	100	200	300	400	500	600	700
		.006	.022	.049	.087	.134	.193	.270
6 x 6 .25 Sq. ft.	CFM	25	50	75	100	125	150	175
	NC	—	—	—	—	23	30	34
	T	1-1-2	1-2-3	1-3-5	3-5-7	3-6-8	4-7-10	5-7-11
9 x 9 .56 Sq. ft.	CFM	55	110	170	225	280	335	390
	NC	—	—	—	22	29	36	40
	T	1-1-2	1-3-5	3-5-7	5-7-10	6-8-12	7-10-15	8-10-17
12 x 12 1.0 Sq. ft.	CFM	100	200	300	400	500	600	700
	NC	—	—	—	26	34	40	45
	T	1-1-2	2-4-5	4-6-9	6-9-12	7-10-15	9-13-20	10-13-21
15 x 15 1.56 Sq. ft.	CFM	155	310	470	625	780	935	1090
	NC	—	—	21	29	37	43	48
	T	1-2-4	2-5-8	4-8-12	8-11-13	10-13-21	11-16-26	13-18-29
18 x 18 2.25 Sq. ft.	CFM	225	450	675	900	1125	1350	1575
	NC	—	—	24	34	41	45	51
	T	1-2-4	3-7-11	5-9-15	8-12-20	11-16-27	13-19-31	14-21-35
21 x 21 3.06 Sq. ft.	CFM	305	610	920	1225	1530	1835	2140
	NC	—	—	26	35	43	48	53
	T	1-3-5	3-8-12	7-11-18	10-15-24	13-20-29	15-22-36	17-24-40
24 x 24 4.0 Sq. ft.	CFM	400	800	1200	1600	2000	2400	2800
	NC	—	—	28	37	44	50	54
	T	1-3-5	4-6-13	8-12-21	12-15-28	16-22-35	18-26-42	20-29-45

**CFM** - cubic feet per minute

**FPM** - feet per minute velocity

**TP** - total pressure - inches w.g.

**T** - throw in feet

**NC** - Noise Criteria (values) based on 10 dB room absorption, re 10<sup>-12</sup> watts.

#### Performance Notes:

1. Throws are given at 150, 100 and 50 fpm terminal velocities.

2. NC values less than 20 are not shown.

3. Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70 – 2006.



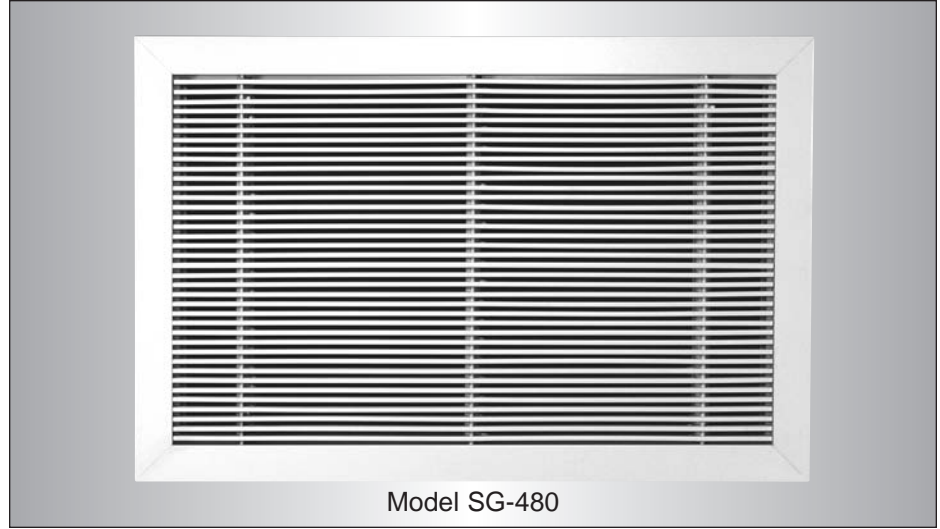
## MINIMUM SECURITY GRILLES AND REGISTERS

- SUPPLY OR RETURN
- ALUMINUM CONSTRUCTION
- FIXED BARS 0° DEFLECTION

### Models:

**SG-280** 1/2" (13) spacing

**SG-480** 1/4" (6) spacing



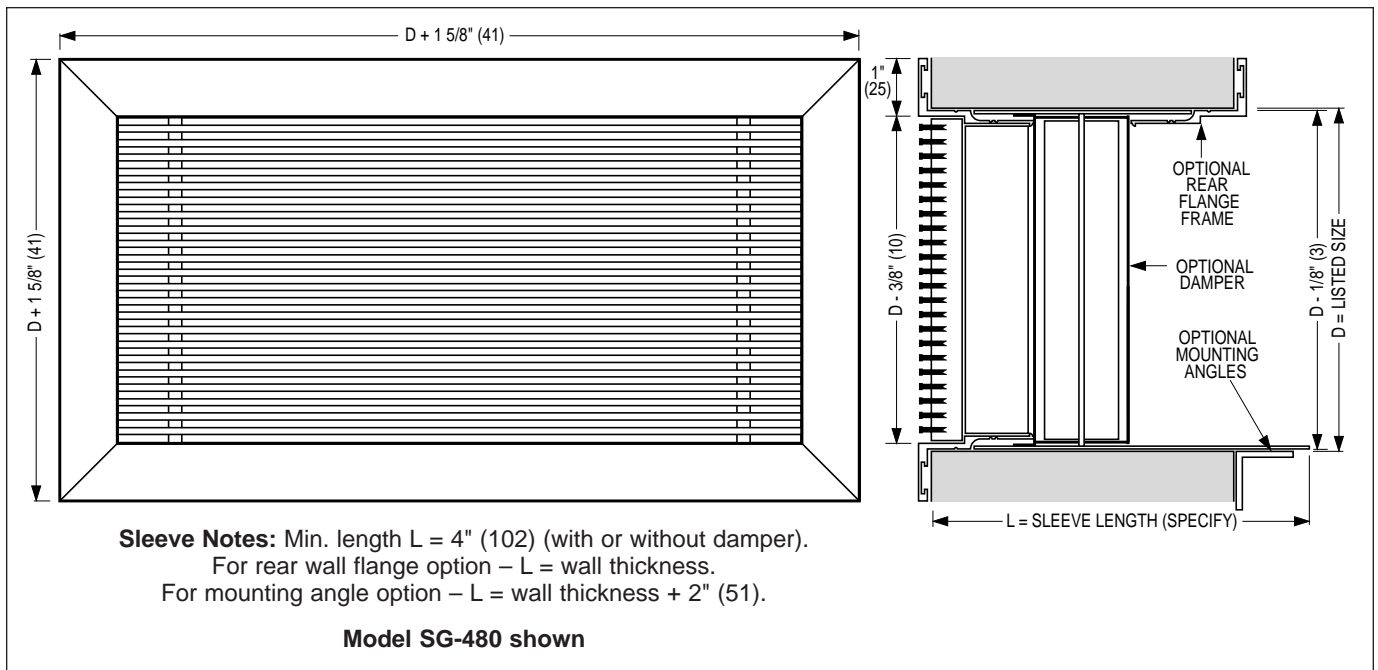
**Models SG-280 and SG-480** are all aluminum minimum security grilles. Rust-proof construction makes these models ideal for use in showers and wet areas where they are constantly exposed to humid conditions. Models have fixed 1/8" (3) thick, extruded horizontal bars on 1/4" (6) or 1/2" (13) centers. They are fixed at 0° deflection and are individually welded to their cross-bar spacers, which in turn are supported by heavy duty extruded aluminum members welded to the grille frame. This grille is securely fastened with a heavy gauge aluminum sleeve welded to the grille frame which passes through the wall. The sleeve is fastened with an optional extruded aluminum wall flange on the reverse side.

### FEATURES:

- Frame: Heavy gauge extruded aluminum with welded mitered corners.
- Bars: 1/8" (3) thick extruded aluminum on 1/4" (6) or 1/2" (13) centers, welded to cross-bars and supported by 1 1/8" x 3/8" (29 x 10) heavy duty extruded support members on maximum 6" (152) centers welded to frame.
- Sleeve: 10 gauge aluminum welded to frame. Length as specified to suit wall thickness.
- Standard finish is AW Appliance White. Other finishes are available.
- Available in sizes 6" x 6" (152 x 152) through 36" x 36" (914 x 914) in single piece construction.

### Options:

- Rear wall flange. Same construction as grille frame. Shipped loose to be field welded to sleeve.
- Mounting angles: Option A, B or C. See page H23.
- Opposed Blade Damper: Face operator (screwdriver slot or lever), Option J, Rear operator (screwdriver slot), Option K, see page H24.



## Performance Data

### Model SG-280 • Supply

Core Area Sq. Feet	Nominal Duct Size, Inches		Core Velocity TP	300	400	500	600	800	1000	1200
				.033	.055	.087	.120	.220	.338	.491
.18	8 x 4	6 x 6	CFM	55	70	90	110	145	180	215
			NC	—	—	—	21	30	36	42
			T	6-9-13	7-10-14	10-12-16	11-13-18	12-14-21	14-17-23	15-18-26
.26	12 x 4	8 x 6	CFM	80	105	130	155	210	260	310
			NC	—	—	—	22	31	37	43
			T	7-11-15	11-13-18	11-14-19	13-15-22	14-18-26	16-20-28	18-21-30
.52	24 x 4	16 x 6	CFM	155	210	260	310	415	520	625
			NC	—	—	23	29	34	40	46
			T	10-14-22	12-17-25	16-20-27	18-23-31	21-26-37	23-29-40	25-31-44
.81	14 x 10	16 x 8	CFM	245	325	405	485	650	810	970
			NC	—	—	25	30	37	43	47
			T	12-17-27	16-22-30	20-26-32	24-30-38	27-32-45	29-34-50	30-38-55
1.60	30 x 8	24 x 10	CFM	480	640	800	960	1280	1600	1920
			NC	—	—	26	31	38	44	50
			T	16-24-37	24-31-41	30-36-46	34-41-54	40-46-64	41-49-67	43-53-75
2.78	30 x 14	24 x 18	CFM	835	1110	1320	1676	2220	2780	3340
			NC	—	21	27	34	41	47	53
			T	23-33-51	30-45-58	38-46-67	42-50-71	49-59-82	57-68-92	60-71-105
4.29	30 x 22	28 x 24	CFM	1290	1720	2140	2570	3430	4290	5150
			NC	—	23	29	36	43	49	56
			T	27-39-63	37-53-73	44-58-81	50-63-92	60-73-105	66-80-119	70-85-130

### Model SG-280 • Return

Core Area Sq. Feet	Nominal Duct Size, Inches		Core Velocity Neg. SP	200	300	400	500	600	800	1000
				.011	.032	.053	.084	.116	.210	.326
.18	8 x 4	6 x 6	CFM	35	55	70	90	110	145	180
			NC	—	—	—	—	21	28	34
			CFM	50	80	105	130	155	210	260
.39	12 x 4	8 x 6	NC	—	—	—	—	24	30	37
			CFM	105	155	210	260	310	415	520
			NC	—	—	—	25	29	36	42
1.18	14 x 10	16 x 8	CFM	160	245	325	405	485	650	810
			NC	—	—	22	28	32	39	45
			CFM	320	480	640	800	960	1280	1600
1.60	30 x 8	24 x 10	NC	—	—	26	32	36	43	49
			CFM	555	835	1110	1390	1670	2220	2780
			NC	—	22	30	36	40	48	53
2.78	30 x 14	24 x 18	CFM	860	1290	1720	2140	2570	3430	4290
			NC	—	26	33	39	43	50	57

**CFM** - cubic feet per minute

**TP** - total pressure - inches w.g.

**SP** - static pressure - inches w.g.

**T** - throw in feet

**NC** - Noise Criteria (values) based on 10 dB room absorption, re 10<sup>-12</sup> watts.

Core Velocity is in feet per minute.

#### Performance Notes:

1. Throws are given at 150, 100 and 50 fpm terminal velocities.

2. NC values less than 20 are not shown.

3. Correction factors for Model SG-480 are as follows:

Total Pressure = Listed value x 1.5

NC level, add + 5 to listed value.

4. Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70 – 2006.

**H**

**SECURITY PRODUCTS**

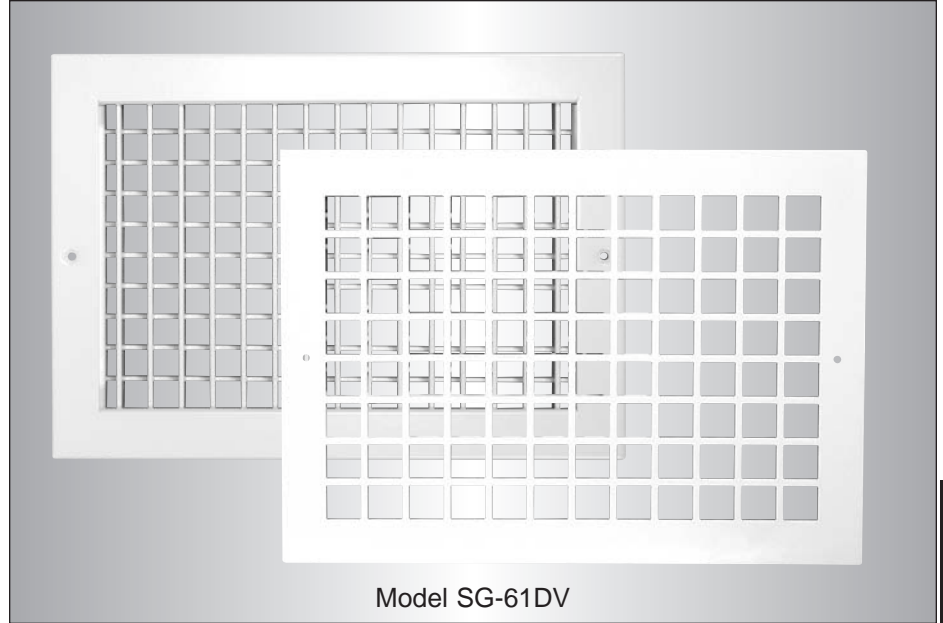
## MINIMUM SECURITY DOUBLE DEFLECTION SUPPLY GRILLES AND REGISTERS

- LATTICE FACE
- LOUVERED BLADES

### Models:

**SG-61DV and DH Steel**  
**SG-51DV and DH Aluminum**

- Suffix '-O' adds an opposed blade damper



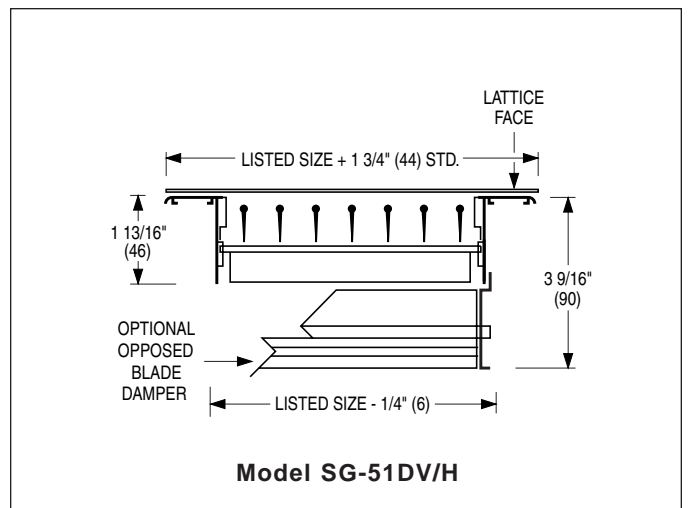
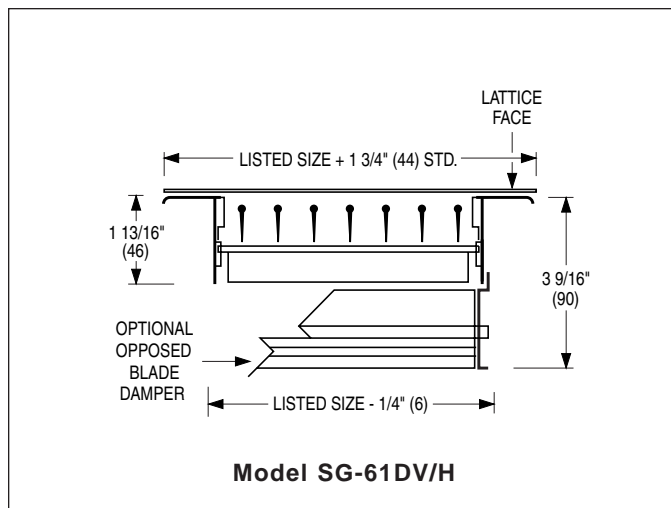
These models are suitable for minimum security applications where the location is either hard to reach, such as high walls or ceilings in day rooms, or where there is constant supervision. The actual size of the unit may have a bearing on its application if the grille size selected is small enough that physical removal and/or bodily entry would not be contemplated. These models are essentially the same as the corresponding **Nailor 6100** and **5100 Series** range of grilles with the addition of a lattice face for additional security.

### FEATURES:

- Lattice Face: 12 gauge steel or aluminum with 13/16" (21) square holes on 1" (25) centers. 3/16" (5) fret bars. Other lattice configurations are available.
- Grille or register is same as corresponding **6100** or **5100 Series**.
- Blades on 3/4" (19) centers are individually adjustable.
- Front blades are vertical (V) or horizontal (H) with the rear blades having the opposite orientation.
- Standard finish is AW Appliance White. Other finishes are available.
- Screw holes provided in face plate. Tamper proof/security screws by others to suit local requirements.
- Performance Data: See the appropriate base model and add the pressure drop of lattice face from table on page H22.
- Available in sizes 6" x 4" (152 x 102) through 48" x 24" (1219 x 610) in one piece construction.

### Options:

- Opposed blade damper (steel or aluminum) has a screwdriver slot operator accessible through face of register.



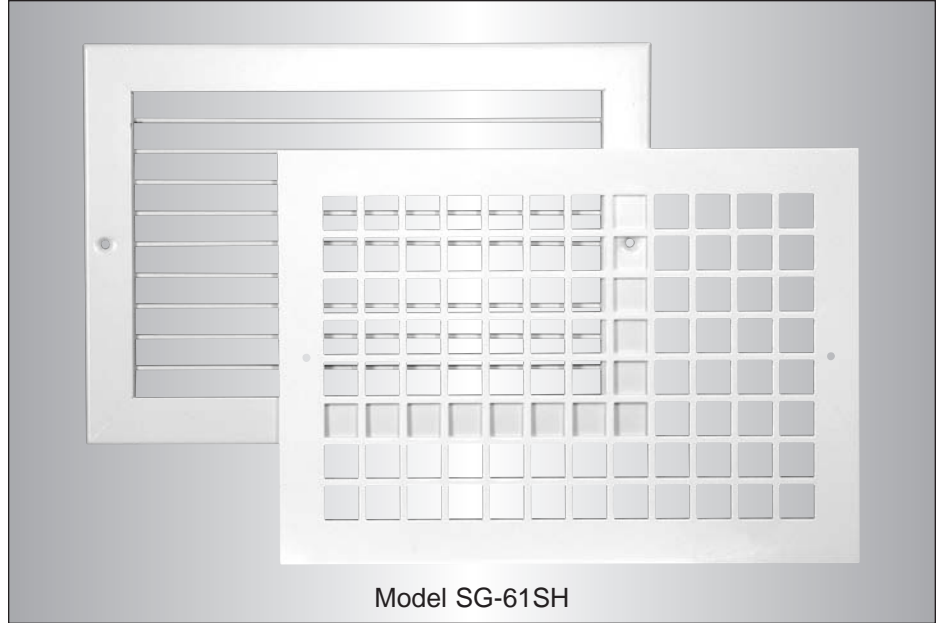
## MINIMUM SECURITY SINGLE DEFLECTION SUPPLY GRILLES AND REGISTERS

- LATTICE FACE
- LOUVERED BLADES

### Models:

**SG-61SV and SH Steel**  
**SG-51SV and SH Aluminum**

- Suffix '-O' adds an opposed blade damper



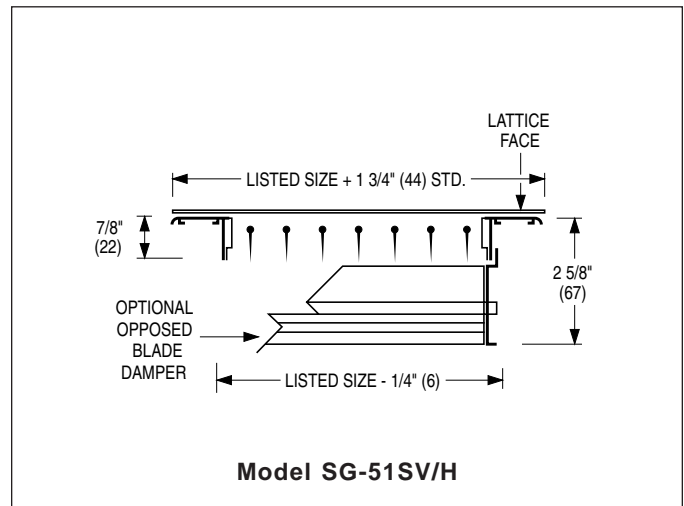
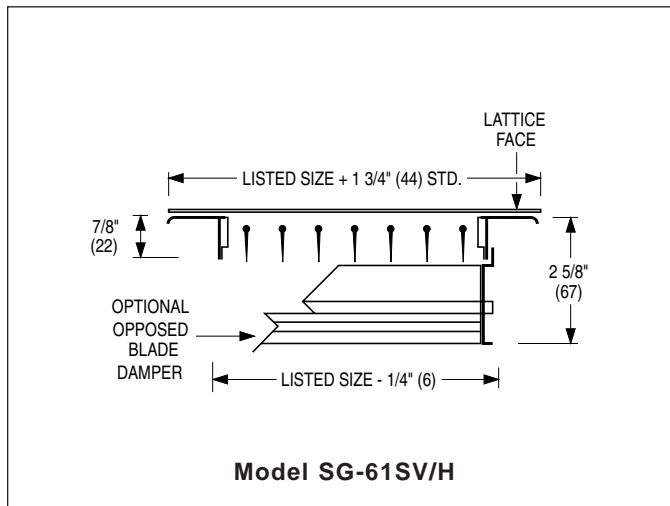
These models are suitable for minimum security applications where the location is either hard to reach, such as high walls or ceilings in day rooms, or where there is constant supervision. The actual size of the unit may have a bearing on its application if the grille size selected is small enough that physical removal and/or bodily entry would not be contemplated. These models are essentially the same as the corresponding **Nailor 6100** and **5100 Series** range of grilles with the addition of a lattice face for additional security.

### FEATURES:

- Lattice Face: 12 gauge steel or aluminum with 13/16" (21) square holes on 1" (25) centers. 3/16" (5) fret bars. Other lattice configurations are available.
- Grille or register is same as corresponding **6100** or **5100 Series**.
- Blades on 3/4" (19) centers are individually adjustable.
- Available with vertical (V) or horizontal (H) blades.
- Standard finish is AW Appliance White. Other finishes are available.
- Screw holes provided in face plate. Tamper proof/security screws by others to suit local requirements.
- Performance Data: See the appropriate base model and add the pressure drop of lattice face from table on page H22.
- Available in sizes 6" x 4" (152 x 102) through 48" x 24" (1219 x 610) in one piece construction.

### Options:

- Opposed blade damper (steel or aluminum) has a screwdriver slot operator accessible through face of register.



## MINIMUM SECURITY FIXED BLADE RETURN GRILLES AND REGISTERS

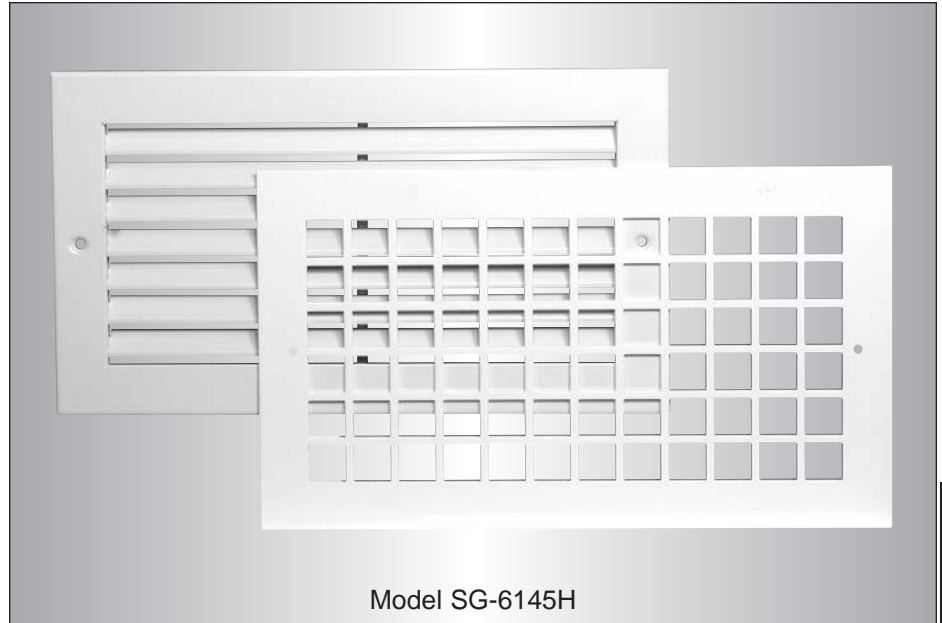
- LATTICE FACE
- 45° DEFLECTION BLADES

### Models:

**SG-6145H and 45V Steel**

**SG-5145H and 45V Aluminum**

- Suffix '-O' adds an opposed blade damper



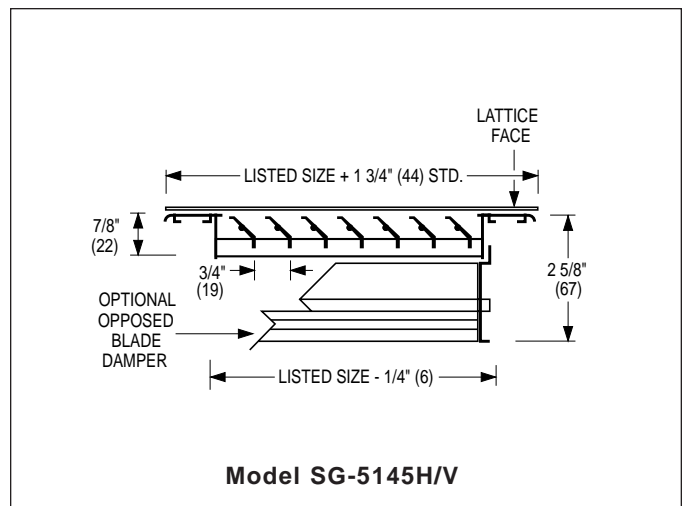
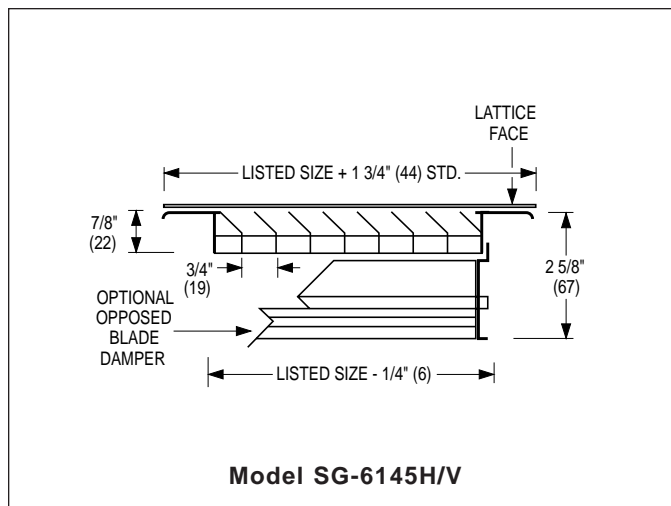
These models are suitable for minimum security applications where the location is either hard to reach, such as high walls or ceilings in day rooms, or where there is constant supervision. The actual size of the unit may have a bearing on its application if the grille size selected is small enough that physical removal and/or bodily entry would not be contemplated. These models are essentially the same as the corresponding **Nailor 6100** and **5100 Series** range of return grilles with the addition of a lattice face for additional security.

### FEATURES:

- Lattice Face: 12 gauge steel or aluminum with 13/16" (21) square holes on 1" (25) centers. 3/16" (5) fret bars. Other lattice configurations are available.
- Grille or register is same as corresponding **6100** or **5100 Series**.
- Blades on 3/4" (19) centers are fixed at 45° deflection.
- Available with horizontal (H) or vertical (V) blades.
- Standard finish is AW Appliance White. Other finishes are available.
- Screw holes provided in face plate. Tamper proof/security screws by others to suit local requirements.
- Performance Data: See the appropriate base model and add the pressure drop of lattice face from table on page H22.
- Available in sizes 6" x 4" (152 x 102) through 48" x 24" (1219 x 610) in one piece construction.

### Options:

- Opposed blade damper (steel or aluminum) has a screwdriver slot operator accessible through face of register.



## MINIMUM SECURITY FIXED BLADE RETURN GRILLES AND REGISTERS

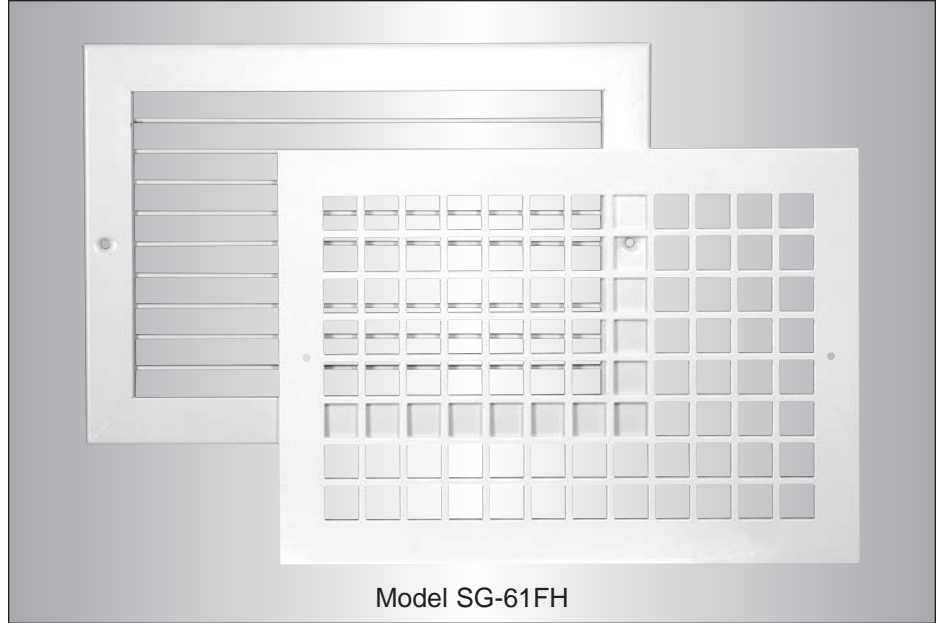
- LATTICE FACE
- 0° DEFLECTION BLADES

### Models:

**SG-61FH and FV Steel**

**SG-51FH and FV Aluminum**

- Suffix '-O' adds an opposed blade damper



These models are suitable for minimum security applications where the location is either hard to reach, such as high walls or ceilings in day rooms, or where there is constant supervision. The actual size of the unit may have a bearing on its application if the grille size selected is small enough that physical removal and/or bodily entry would not be contemplated. These models are essentially the same as the corresponding **Nailor 6100** and **5100 Series** range of return grilles with the addition of a lattice face for additional security.

### FEATURES:

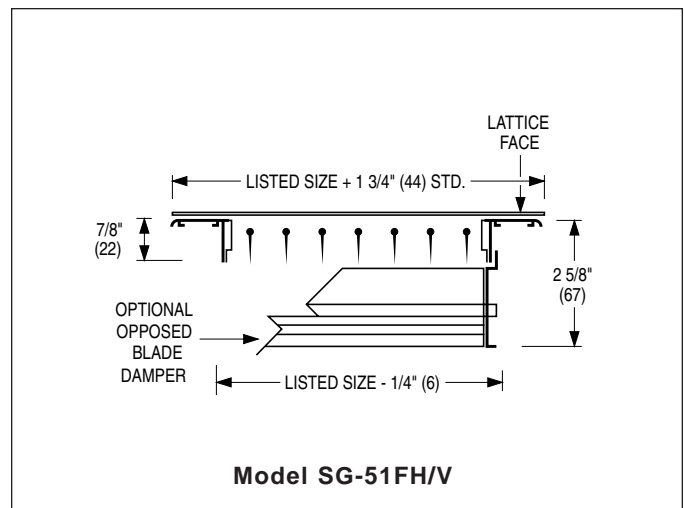
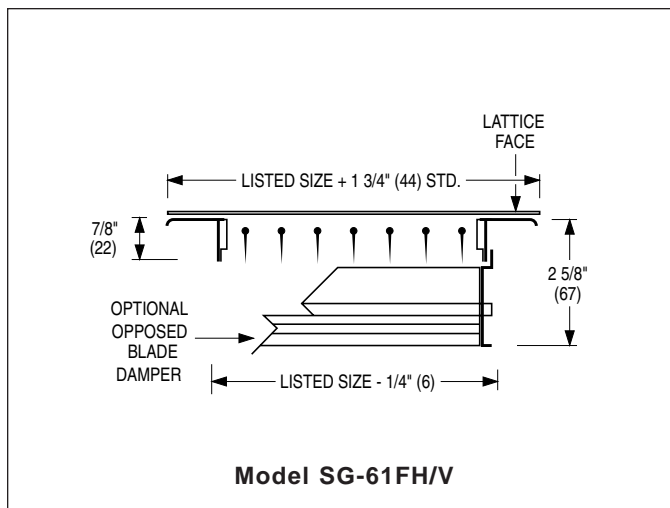
- Lattice Face: 12 gauge steel or aluminum with 13/16" (21) square holes on 1" (25) centers. 3/16" (5) fret bars. Other lattice configurations are available.
- Grille or register is same as corresponding **6100** or **5100 Series**.
- Blades on 3/4" (19) centers are fixed at 0° deflection.
- Available with horizontal (H) or vertical (V) blades.
- Standard finish is AW Appliance White. Other finishes are available.
- Screw holes provided in face plate. Tamper proof/security screws by others to suit local requirements.
- Performance Data: See the appropriate base model and add the pressure drop of lattice face from table on page H22.
- Available in sizes 6" x 4" (152 x 102) through 48" x 24" (1219 x 610) in one piece construction.

### Options:

- Opposed blade damper (steel or aluminum) has a screwdriver slot operator accessible through face of register.

H

SECURITY PRODUCTS





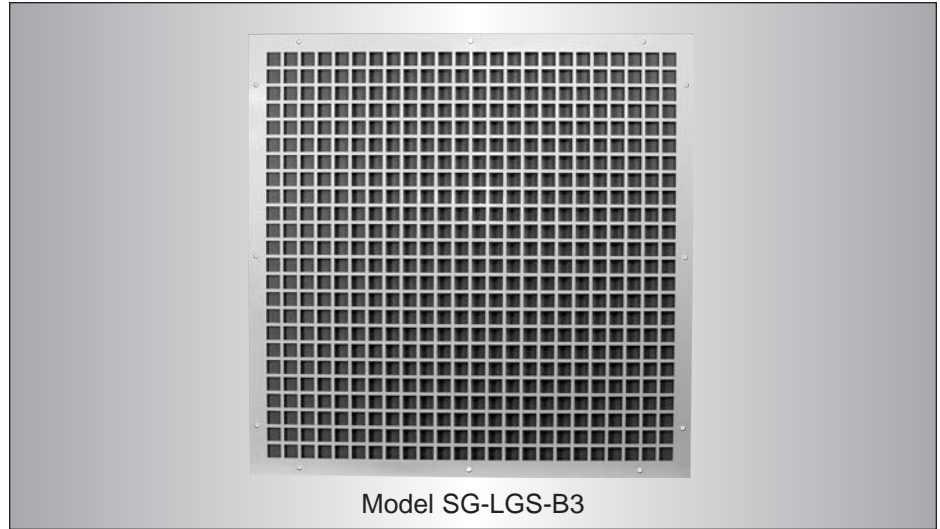
## MINIMUM SECURITY LATTICE FACE GRILLES

- 13/16" (21) SQUARE HOLES ON 1" (25) CENTERS
- 12 GAUGE MATERIAL

### Models:

**SG-LGS Steel**

**SG-LGA Aluminum**



Model SG-LGS-B3

**Nailor SG-LG Series Lattice Face Grilles** are available as an economical return air grille for minimum security applications. The **SG-LG** is available with an optional PF Plaster/Mounting Sub-frame which provides not only a professional finish, but also allows the option of an opposed blade damper mounted inside the neck for air balancing.

### FEATURES:

- **Model Series SG-LG** features 13/16" (21) square holes on 1" (25) centers with 3/16" (5) fret bars in 12 gauge (2.75) steel or aluminum construction.
- Screw holes provided in face plate.

Tamper proof/security screws by others to suit local requirements.

- Standard finish is AW Appliance White. Other finishes are available.

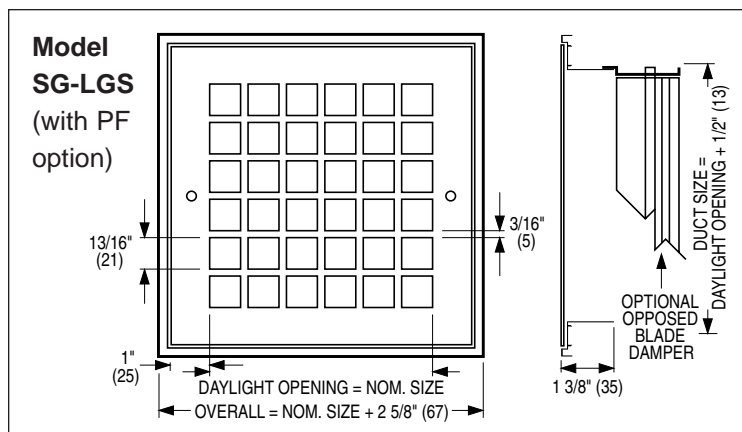
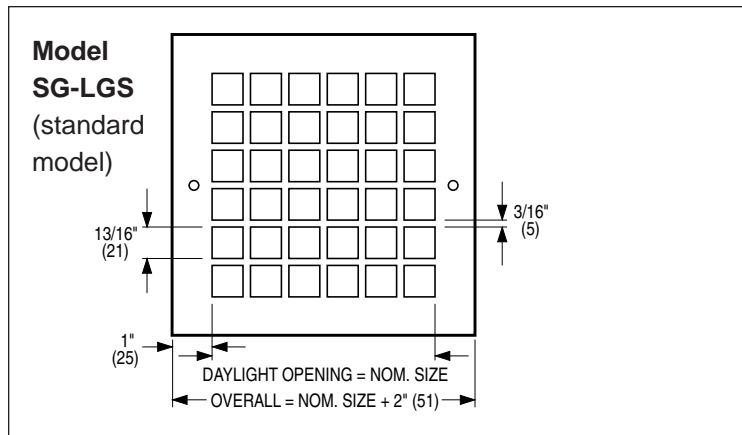
### Options:

- PF Plaster/Mounting sub-frame.

- Opposed blade damper with screwdriver slot operator, operable from face, available with PF option.

- Other material gauges: 10 gauge or 14 gauge steel or aluminum.

- Other lattice designs. See table.



### OPTIONAL LATTICE CONFIGURATIONS

HOLE PATTERN	CODE OPTION		
	10 GA.	12 GA.	14 GA.
3/4" (19) square holes on 1" (25) centers	A1	B1	C1
1/2" (13) square holes on 3/4" (19) centers	A2	B2	C2
13/16" (21) square holes on 1" (25) centers	A3	B3	C3
1" (25) square holes on 1 1/4" (32) centers	A4	B4	C4
2 1/2" x 1/2" (64 x 13) rectangular holes on 2 3/4" x 3/4" (70 x 19) centers	A5	B5	C5

Code option B3 is standard.

## Sizing Schedule and Performance Data

### Model Series SG-LGS and SG-LGA • Lattice Face Grilles

**SECURITY PRODUCTS**

DAYLIGHT OPENING DIMENSION													
NO. OF HOLES	CODE A1, B1, C1 3/4" SQ.		CODE A2, B2, C2 1/2" SQ.		CODE A3, B3, C3 13/16" SQ.		CODE A4, B4, C4 1" SQ.		NO. OF HOLES	CODE A5, B5, C5 2 1/2" x 1/2"			
										WIDTH		HEIGHT	
	in.	mm	in.	mm	in.	mm	in.	mm		in.	mm	in.	mm
6	5 3/4	146	4 1/4	108	5 13/16	148	7 1/4	184	3	6 1/2	165	2	51
8	7 3/4	197	5 3/4	146	7 13/16	198	9 3/4	248	4	8 3/4	222	2 3/4	70
10	9 3/4	248	7 1/4	184	8 13/16	249	12 1/4	311	5	11	279	3 1/2	89
12	11 3/4	298	8 3/4	222	11 13/16	300	14 3/4	375	6	13 1/4	337	4 1/4	18
14	13 3/4	349	10 1/4	260	13 13/16	335	17 1/4	438	7	15 1/2	394	5	127
16	15 3/4	400	11 3/4	298	15 13/16	402	19 3/4	502	8	17 3/4	451	5 3/4	146
18	17 3/4	451	13 1/4	337	17 13/16	452	22 1/4	565	9	20	508	6 1/2	165
20	19 3/4	502	14 3/4	375	19 13/16	503	24 3/4	629	10	22 1/4	565	7 1/4	184
22	21 3/4	552	16 1/4	413	21 13/16	554	27 1/4	692	11	24 1/2	622	8	203
24	23 3/4	603	17 3/4	451	23 13/16	605	29 3/4	756	12	26 3/4	679	8 3/4	222
26	25 3/4	654	19 1/4	489	25 13/16	656	32 1/4	819	13	29	737	9 1/2	241
28	27 3/4	705	20 3/4	527	27 13/16	706	34 3/4	883	14	31 1/4	794	10 1/4	260
30	29 3/4	756	22 1/4	565	29 13/16	757	37 1/4	946	15	33 1/2	851	11	279
32	31 3/4	806	23 3/4	603	31 13/16	808	39 3/4	1010	16	35 3/4	908	11 3/4	298
34	33 2/4	857	25 1/4	641	33 13/16	859	42 1/4	1073	17	38	965	12 1/2	317
36	35 3/4	908	26 3/4	679	35 13/16	910	44 3/4	1137	18	40 1/4	1022	13 1/4	336
38	37 3/4	959	28 1/4	718	37 13/16	960	47 1/4	1200	19	42 1/2	1079	14	356
40	39 3/4	1010	29 3/4	756	39 13/16	1011			20	44 3/4	1136	14 3/4	375
42	41 3/4	1060	31 1/4	794	41 13/16	1062			21	47	1194	15 1/2	394
44	43 3/4	1111	32 3/4	832	43 13/16	1113							
46	45 3/4	1162	34 1/4	870	45 13/16	1164							
48	47 3/4	1213	35 3/4	908	47 13/16	1214							
50			37 1/4	946									
52			38 3/4	984									
54			40 1/4	1022									
56			41 3/4	1060									
58			43 1/4	1099									
60			44 3/4	1137									
62			46 1/4	1175									
64			47 3/4	1213									

### Pressure Loss Through Lattice Grille

Option Code	Core Velocity VP	300 .006	400 .010	500 .016	600 .022	700 .031	800 .040	900 .051	1000 .062	1200 .090	1400 .122
A1, B1, C1 (60%)	Neg. SP	.019	.034	.053	.077	.105	.137	.173	.213	.307	.418
A2, B2, C2 (50%)		.032	.057	.089	.128	.174	.228	.288	.356	.512	.697
A3, B3, C3 (70%)		.011	.020	.031	.044	.060	.078	.099	.122	.176	.240
A4, B4, C4 (68%)		.012	.022	.034	.050	.068	.089	.112	.138	.198	.270
A5, B5, C5 (65%)		.015	.027	.042	.061	.083	.108	.137	.167	.243	.331

**VP** - velocity pressure - inches w.g.

**Neg. SP** - negative static pressure - inches w.g.

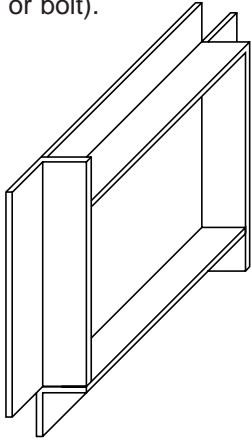
Core Velocity is in feet per minute.

Core represents daylight opening dimensions.

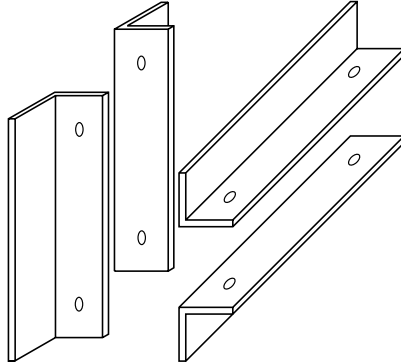
Options and Accessories

Mounting Angles

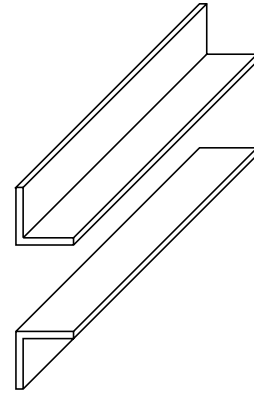
**Option A** 1" x 1" x 1/8" (25 x 25 x 3) welded rear angle frame. Shipped loose for field attachment (weld or bolt).



**Option B** 4 pcs. 1" x 1" x 1/8" (25 x 25 x 3) mounting angles, with holes and bolts. Shipped loose for field attachment.

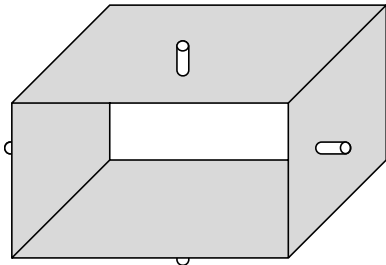


**Option C** 2 pcs. 1" x 1" x 1/8" (25 x 25 x 3) mounting angles (long dim.). Shipped loose for field attachment (weld or bolt).



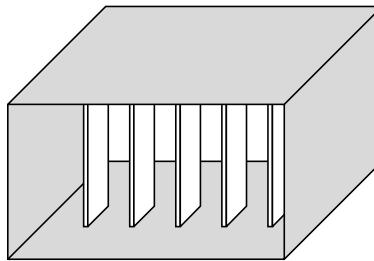
Masonry Anchor Tabs

**Option D** 1/2" (13) dia. steel anchor tabs. 3" (76) long for concrete or brick walls. Minimum one per side.

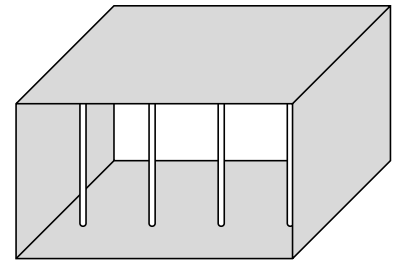


Security Bars

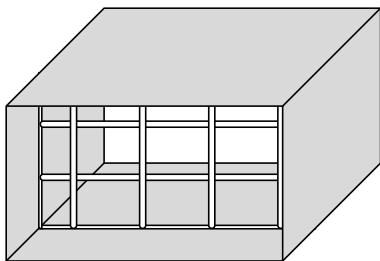
**Option E** 2 1/2" x 3/8" (64 x 10) flat security bars welded in sleeve, 4" (102) max. on center.



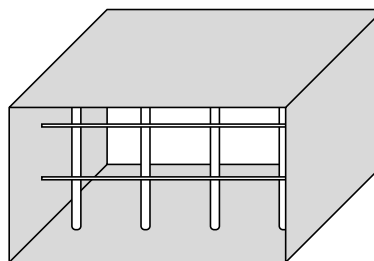
**Option F** 1/2" (13) dia. round security bars welded in sleeve, 6" (152) max. on center.



**Option G** Barrier Grille. 1/2" (13) dia. round security bars, vertical and horizontal, 6" (152) max. on center welded to sleeve and at each cross-point.



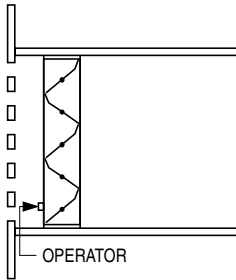
**Option H** Barrier Grille. 3/4" (19) dia. vertical bars with 2" x 1/4" (51 x 6) horizontal flat bars welded to sleeve and at each cross-point.



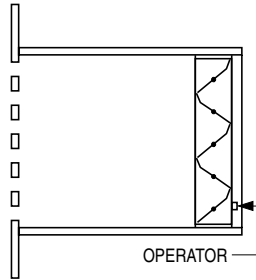
## Options and Accessories

### Opposed Blade Dampers

**Option J** Opposed Blade Damper. Face operator (screwdriver slot or lever).

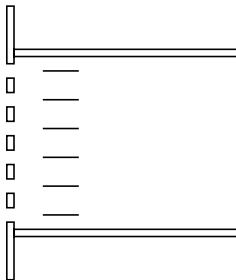


**Option K** Opposed Blade Damper. Rear operator (screwdriver slot).

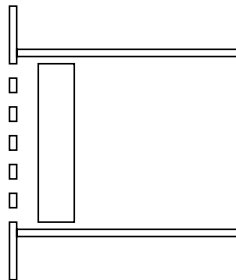


### Directional Blades

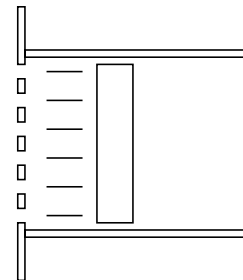
**Option L** Adjustable single deflection horizontal blades on 3/4" (19) centers.



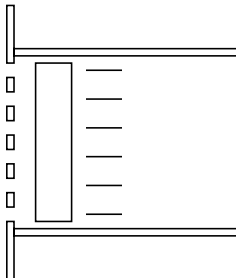
**Option M** Adjustable single deflection vertical blades on 3/4" (19) centers.



**Option N** Adjustable double deflection blades on 3/4" (19) centers. Horizontal front blades.



**Option P** Adjustable double deflection blades on 3/4" (19) centers. Vertical front blades.



**Important note for all options and accessories:**  
Not all options shown, or certain combinations, are necessarily available on individual security products. Consult the individual model description to determine which options apply.