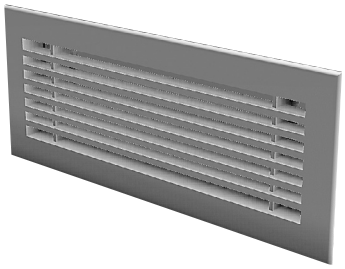
METALAIRE™

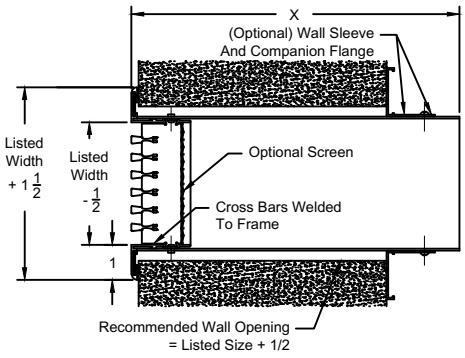
MODEL SG2000



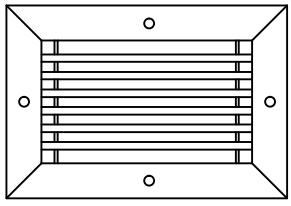
The SG2000 minimum security linear bar grille is designed for areas with corrosive environments that require limited duct access. The SG2000 is constructed of heavy gauge aluminum bars welded to an aluminum frame.

- 7/32" bars on 1/2" centers
- Fixed 0°, 15°, or 30° deflection cores
- Optional sleeve available

Model: 2000-1 (Security Grille - 0° , 15° or 30° Deflection - No Sleeve)

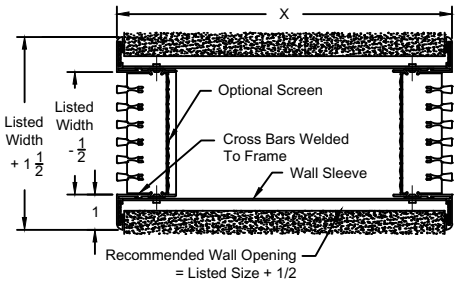


Face View (Both Models)
Mounting Screw Holes
Optional

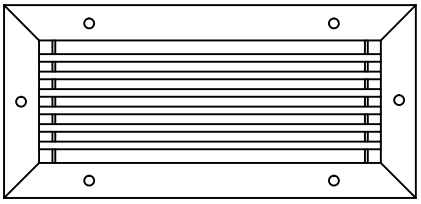


Lengths Up To 12"
4 Holes
One Each Side Centered

Model: 2000-2 (Security Grille - 0° , 15° or 30° Deflection - With Steel Sleeve)

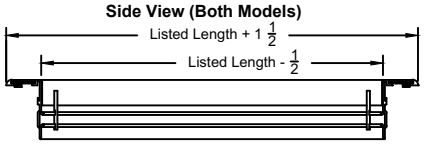


X - Has to be specify (when ordering).

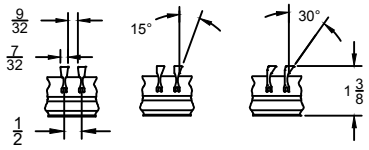


Lengths Over 12" Up to 36"
6 Holes
1 Each End Centered
2 Holes Each Side
4" In From End

Side View (Both Models)



Air Pattern Deflectors



0° Deflection 15° Deflection 30° Deflection

Installation Option Only
SG2000-1/SG2015-1/SG2030-1

SAB	Steel Anchor Bars
SBR	Steel Security Bars
LSA- 2S	Loose Steel Angle (2 Angles Short Dimensions)
LSA - 2L	Loose Steel Angle (2 Angles Long Dimensions)
LSA - 4	4 Loose Angles
WAF	Welded Steel Angle Frame
BSA - 2S	Bolted Steel Angles (2 Angles Short Dimensions)
BSA - 2L	Bolted Steel Angles (2 Angles Long Dimensions)
BSA - 4	4 Bolted Angles
WSA - 2S	Welded Steel Angles (2 Angles Short Dimensions)
WSA - 2L	Welded Steel Angles (2 Angles Long Dimensions)
WSA - 4	4 Welded Angles

SERIES SG2000 SPECIFICATIONS

MINIMUM SECURITY LINEAR BAR GRILLE – ALUMINUM – MODEL SG2000

- Air grille (or inlets) shall be model SG2000 manufactured by METALAIRE. Units shall be minimum security supply grilles of aluminum construction.
- Units shall have linear bars 7/32" spaced on 1/2" centers welded to an aluminum frame. Border shall be 1" wide.
- Optional opposed blade damper constructed of aluminum shall be provided on units 4" and wider. Units less than 4" wide shall be provided with an aluminum "flap" type damper.
- Damper must be operable from the rear of the grille.

Performance Specification

The manufacturer shall provide published performance data. Data shall be tested in accordance to ANSI/ ASHRAE Standard 70-2006.

Paint Specification

Process shall be anodic electro-deposition using an anodic acrylic paint. Units shall undergo pre-treatment including a pressurized spray stage using an alkaline cleaner and a de-ionized water rinse.

SG2000 MODEL NUMBER SPECIFICATION

MINIMUM SECURITY BAR GRILLES

Model	Neck																Sleeve
SG2000-1		6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	
SG2015-1	4	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
SG2030-1	5	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
SG2000-2	6	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
SG2015-2	7		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	4 - 16
SG2030-2	8		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
	10			X	X	X	X	X	X	X	X	X	X	X	X	X	X	
	12				X	X	X	X	X	X	X	X	X	X	X	X	X	

Available Finishes		Available Accessories - Aluminum	
Standard		OBDA	Opposed Blade Damper
01	White	AAB	Anchor Bars
Optional		SBR-AL	Security Bars
02	Satin Silver	LALA	Loose Angle
03	Black	BALA	Bolted Angle
28	Custom Color	WALA	Welded Angle
		WAF-AL	Welded Angle Frame

METALAIRE™

SG2000 PERFORMANCE DATA

MODEL SG2000

SG2000 (0° and 15° Deflection)

Listed Width (In Inches) Free Area Per Foot (ft²)	Outlet Velocity (Vk)	500	700	900	1000	1100	1200	1300
	Total Pressure (Pt)	.016	.031	.051	.062	.076	.090	.105
	Static Pressure (Ps)	.012	.024	.040	.050	.060	.072	.084
	NC	-	15	20	23	26	29	31
1 1/2” .062	Flow CFM /FT	31	43	56	62	68	74	81
	Throw, Sill or Floor	6-9	9-13	10-14	11-16	13-18	13-19	14-20
	Throw, Side Wall	8-11	11-16	13-18	14-20	15-22	17-24	17-25
2” .086	Flow CFM /FT	43	60	77	86	95	103	112
	Throw, Sill or Floor	5-8	8-12	10-14	11-16	13-18	13-19	14-20
	Throw, Side Wall	7-10	10-15	13-18	14-20	15-22	17-24	17-25
2 1/2” .110	Flow CFM /FT	55	77	99	110	121	132	143
	Throw, Sill or Floor	6-9	9-13	11-16	13-18	13-19	15-21	15-22
	Throw, Side Wall	8-11	11-16	14-20	16-23	17-24	18-26	20-28
3” .130	Flow CFM /FT	65	91	117	130	143	156	169
	Throw, Sill or Floor	7-10	10-15	13-18	15-21	15-22	17-24	18-26
	Throw, Side Wall	8-12	13-18	15-22	17-25	18-26	20-28	21-30
3 1/2” .152	Flow CFM /FT	76	106	137	152	167	182	198
	Throw, Sill or Floor	7-10	10-15	13-18	15-21	15-22	17-24	18-26
	Throw, Side Wall	9-13	13-19	16-23	18-26	20-28	21-30	22-33
4” .176	Flow CFM /FT	88	123	158	176	194	211	229
	Throw, Sill or Floor	8-11	12-16	14-20	16-23	18-26	19-27	20-29
	Throw, Side Wall	10-14	15-22	17-25	20-29	22-32	24-34	25-36
5” .220	Flow CFM /FT	110	154	198	220	242	264	286
	Throw, Sill or Floor	8-12	13-18	15-21	17-24	18-26	19-27	21-30
	Throw, Side Wall	10-15	15-22	19-27	22-31	23-33	24-35	27-38
6” .265	Flow CFM /FT	133	186	239	265	292	318	345
	Throw, Sill or Floor	8-12	13-18	15-22	17-25	18-26	20-28	21-30
	Throw, Side Wall	10-15	15-22	19-27	22-31	23-33	24-35	27-38
8” .356	Flow CFM /FT	178	249	320	356	392		
	Throw, Sill or Floor	10-14	13-19	15-22	18-26	19-27		
	Throw, Side Wall	12-17	17-24	20-28	23-33	24-34		
10” .446	Flow CFM /FT	223	312	401	446			
	Throw, Sill or Floor	10-15	15-22	18-26	21-30			
	Throw, Side Wall	13-19	20-28	23-33	26-37			

CONTINUED

SG2000 PERFORMANCE DATA

MODEL SG2000

Listed Width (In Inches) Free Area Per Foot (ft²)	Outlet Velocity (Vk)	500	700	900	1000	1100	1200	1300
	Total Pressure (Pt)	.016	.031	.051	.062	.076	.090	.105
	Static Pressure (Ps)	.012	.024	.040	.050	.060	.072	.084
	NC	-	15	20	23	26	29	31
12” .536	Flow CFM /FT	268	375	482				
	Throw, Sill or Floor	12-17	22-31	21-33				
	Throw, Side Wall	15-21	24-35	27-38				

PERFORMANCE NOTES FOR SERIES SG2000

All data is tested in accordance with ANSI/ASHRAE 70-2006.

DEFINITION OF UNITS

CFM *Cubic Feet per Minute (air)*

Nk Vel *Neck Velocity is the airstream velocity in the duct just before it reaches the supply outlet; measured in Feet per Minute*

NC *Noise criterion, sound pressure level NC ratings are based on sound power level (Lw) re: 10^{-12} watts minus a 10dB room attenuation in all octave bands*

Throw *Throw distance in feet are for terminal velocities of 150 and 50 fpm respectively / Supply Air temperature 20° F below room air temperature.*

Pt *Total pressures in inches of water column*

Ps *Static pressure = Pt–Pv (inches of water column)*

METALAIRE™

SG2000 PERFORMANCE DATA

MODEL SG2000

SG2000 (30° Deflection)

Listed Width	Outlet Velocity (Vk)	500	700	900	1000	1100	1200	1300
(In Inches)	Total Pressure (Pt)	.020	.040	.067	.081	.100	.119	.139
Free Area Per Foot (ft^2)	Static Pressure (Ps)	.017	.034	.056	.070	.084	.100	.118
	NC	15	20	25	28	31	34	36
1 1/2"	Flow CFM /FT	35	49	64	71	78	84	92
.062	Throw, Sill or Floor	5-8	8-12	10-14	11-16	13-18	13-19	14-20
	Throw, Side Wall	7-9	10-14	12-16	14-20	15-22	17-24	17-25
2"	Flow CFM /FT	49	68	88	98	108	118	128
.086	Throw, Sill or Floor	6-9	9-13	10-14	11-16	13-18	13-19	14-20
	Throw, Side Wall	8-10	10-15	13-18	15-21	16-23	17-27	18-26
2 1/2"	Flow CFM /FT	63	88	113	126	138	151	163
.110	Throw, Sill or Floor	6-9	9-13	11-16	13-18	13-19	15-21	15-22
	Throw, Side Wall	8-11	11-16	14-20	16-23	17-24	18-26	20-28
3"	Flow CFM /FT	74	104	133	148	163	178	193
.130	Throw, Sill or Floor	7-10	10-14	13-18	15-21	15-22	17-24	18-26
	Throw, Side Wall	8-12	13-18	15-22	17-25	18-26	20-28	21-30
3 1/2"	Flow CFM /FT	87	121	156	173	191	208	226
.152	Throw, Sill or Floor	7-10	10-15	13-18	14-20	15-21	15-22	17-24
	Throw, Side Wall	9-13	13-19	16-23	18-26	20-28	21-30	22-32
4"	Flow CFM /FT	100	140	180	201	221	241	261
.176	Throw, Sill or Floor	8-11	13-18	15-21	17-24	18-26	19-27	21-30
	Throw, Side Wall	10-14	15-22	17-25	20-29	22-32	24-34	25-36
5"	Flow CFM /FT	126	176	226	251	276	301	326
.220	Throw, Sill or Floor	8-12	13-18	15-22	17-25	18-26	20-28	21-30
	Throw, Side Wall	10-15	15-22	19-27	22-31	23-33	24-35	27-38
6"	Flow CFM /FT	151	212	272	302	333	363	393
.265	Throw, Sill or Floor	9-13	13-18	15-22	17-25	18-26	20-28	21-30
	Throw, Side Wall	10-15	15-22	19-27	22-31	23-33	24-35	27-38
8"	Flow CFM /FT	203	284	366	406	447		
.356	Throw, Sill or Floor	10-14	13-19	15-22	18-26	19-27		
	Throw, Side Wall	12-17	17-24	20-28	23-33	24-34		

CONTINUED

SG2000 PERFORMANCE DATA

MODEL SG2000

Listed Width	Outlet Velocity (Vk)	500	700	900	1000	1100	1200	1300
(In Inches)	Total Pressure (Pt)	.020	.040	.067	.081	.100	.119	.139
Free Area Per Foot (ft^2)	Static Pressure (Ps)	.017	.034	.056	.070	.084	.100	.118
	NC	15	20	25	28	31	34	36
10”	Flow CFM /FT	254	356	458	509			
.446	Throw, Sill or Floor	10-15	15-22	18-26	21-30			
	Throw, Side Wall	13-19	20-28	23-33	26-37			
12”	Flow CFM /FT	306	428	550				
.536	Throw, Sill or Floor	12-17	22-31	21-30				
	Throw, Side Wall	15-21	24-35	27-38				

PERFORMANCE NOTES FOR SERIES SG2000

All data is tested in accordance with ANSI/ASHRAE 70-2006.

DEFINITION OF UNITS

CFM *Cubic Feet per Minute (air)*

Nk Vel *Neck Velocity is the airstream velocity in the duct just before it reaches the supply outlet; measured in Feet per Minute*

NC *Noise criterion, sound pressure level NC ratings are based on sound power level (Lw) re: 10^{-12} watts minus a 10dB room attenuation in all octave bands*

Throw *Throw distance in feet are for terminal velocities of 150 and 50 fpm respectively / Supply Air temperature 20° F below room air temperature.*

Pt *Total pressures in inches of water column*

Ps *Static pressure = Pt–Pv (inches of water column)*