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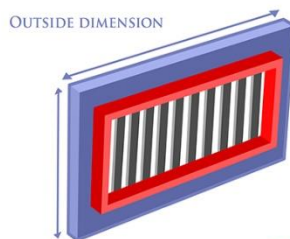
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## Measuring:

- The ordered size of the register or return grille should be the dimensions of the duct opening.
  - Most registers & returns are slightly undersized to accommodate variations in duct shape.
  - Our products also include the overall dimensions of the faceplate under product description.

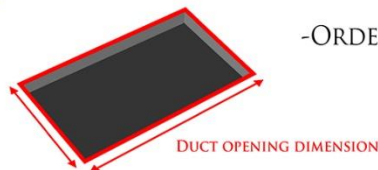
There are **exceptions** to this rule.



## HOW TO ORDER YOUR VENT COVER

- REMOVE THE EXISTING VENT COVER TO EXPOSE THE DUCT OPENING
- MEASURE THE DUCT OPENING TO OBTAIN THE INSIDE MEASUREMENT
- ORDER YOUR VENT COVER BASED ON THE INSIDE MEASUREMENT

\*MOST REGISTERS AND RETURNS ARE SLIGHTLY UNDERSIZED TO ACCOMMODATE UNEVEN DUCT OPENINGS



- Hinged Air Return: Order based on the size of the filter. For example, if your filter is a 14 x 20, you should order a 14 x 20 hinged return grille.
- For baseboard registers & returns, the size is based on the overall length required.

## **General Overview**

- Pattern direction is dictated by stated opening size.
- Pattern size is always  $\frac{3}{4}$ " smaller than stated register size, e.g.
- Standard screw size #8 x  $1\frac{3}{4}$ " and are counter sunk into the face of the register
- Frame OD size is  $\frac{3}{8}$ " smaller than stated size overall, e.g. 14"x6" is  $13\frac{5}{8}$ " x  $5\frac{5}{8}$ " frame OD
- Frames are:
  - $\frac{3}{4}$ " deep without a damper
  - $2\frac{1}{4}$ " deep with damper

## **Flange**

- If the register is 4" across narrowest width or smaller; Flange size is  $\frac{3}{4}$ " on each side of register to equal  $1\frac{1}{2}$ " larger than stated size e.g. 24" x 4" = 25.5" x 5.5" OD
- If the register is between 4.5" wide to 13.5" wide); Flange size is 1" on each side of register to equal 2" larger than the stated size e.g. 24" x 12" is 26" x 14" OD
- All registers wider than 14"; Flange size is  $1\frac{1}{4}$ " on each side of register to equal  $2\frac{1}{2}$ " larger than the stated size e.g. 15" x 15" is 17.5" x 17.5" OD



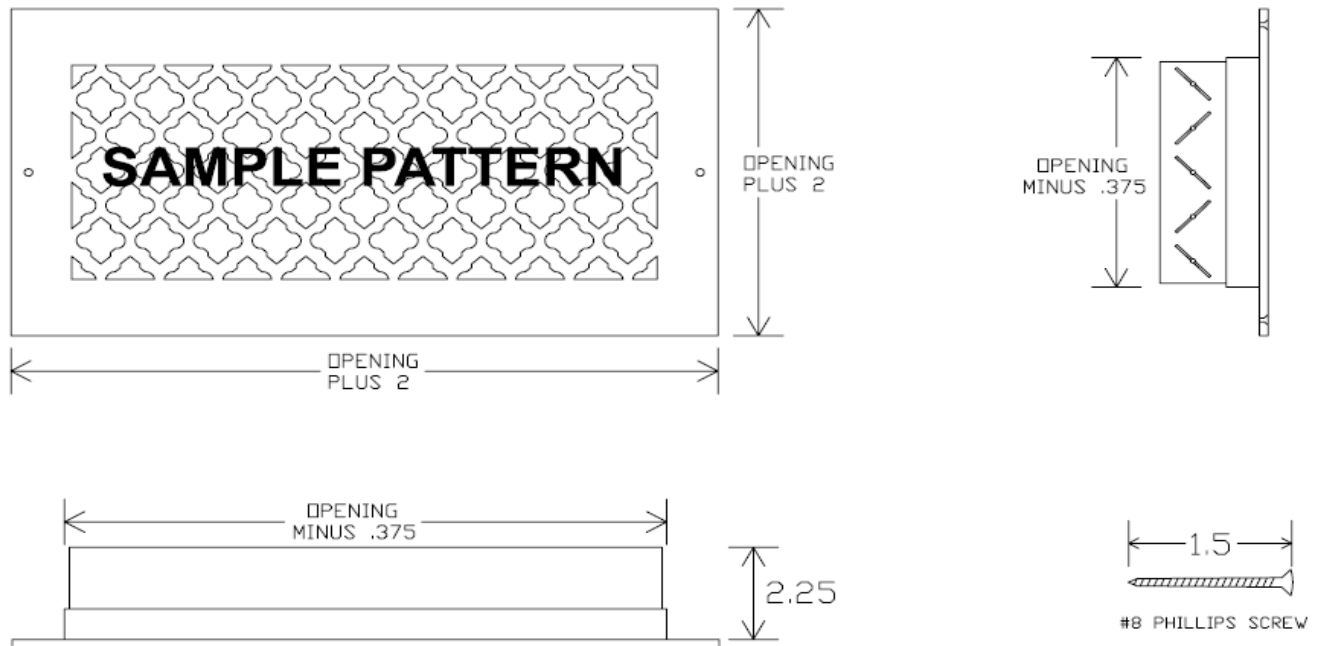
Returns/Exchanges are not excepted on most of the Steel Designs items; please check your measurements carefully. If you have questions, please contact us at [ventcoversunlimited@gmail.com](mailto:ventcoversunlimited@gmail.com)



For additional information related to measuring, please refer to <https://ventcoversunlimited.com/measuring/> or contact us at [ventcoversunlimited@gmail.com](mailto:ventcoversunlimited@gmail.com)

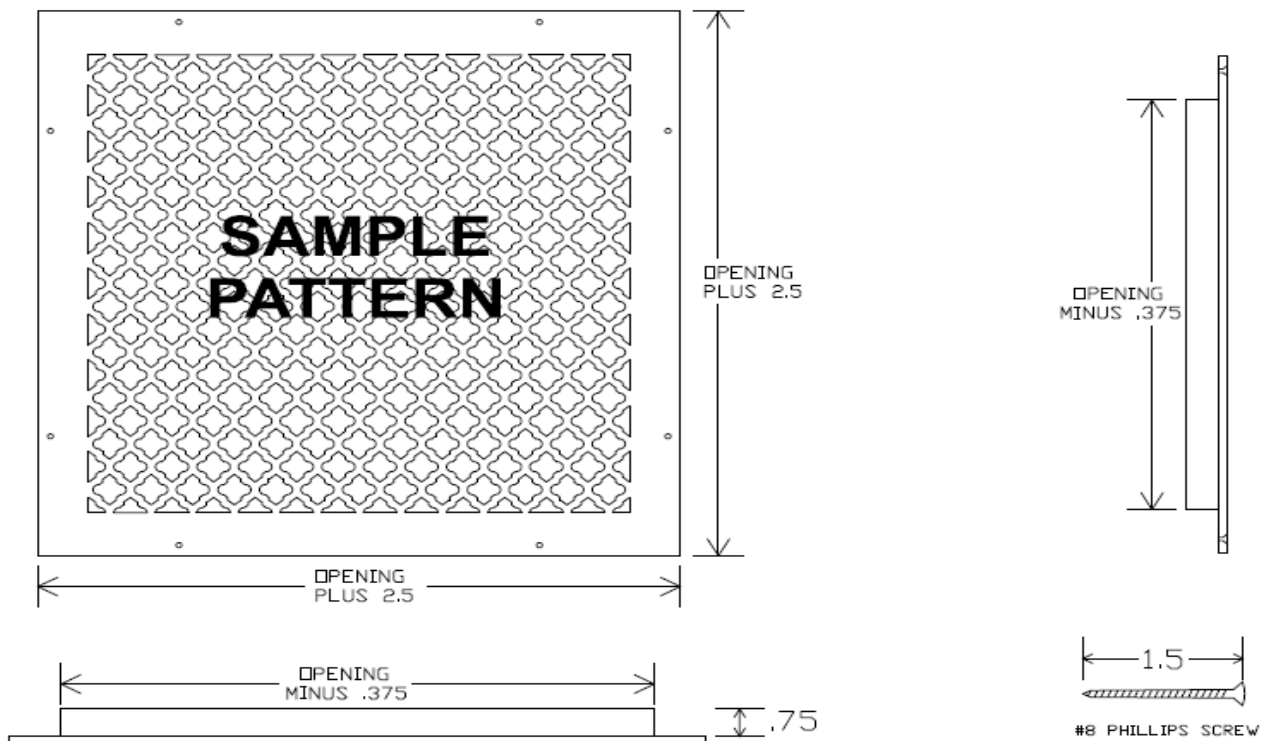
## Diagrams:

### Typical Supply/ Register:



NOTE: if the dimension of the opening is less than or equal to 5" (width/height) the outer dimension will be opening plus 1.5"  
ADDITIONAL NOTE: if the dimension of the opening is equal to or greater than 14" (width/height) use the TYPICAL RETURN drawing.

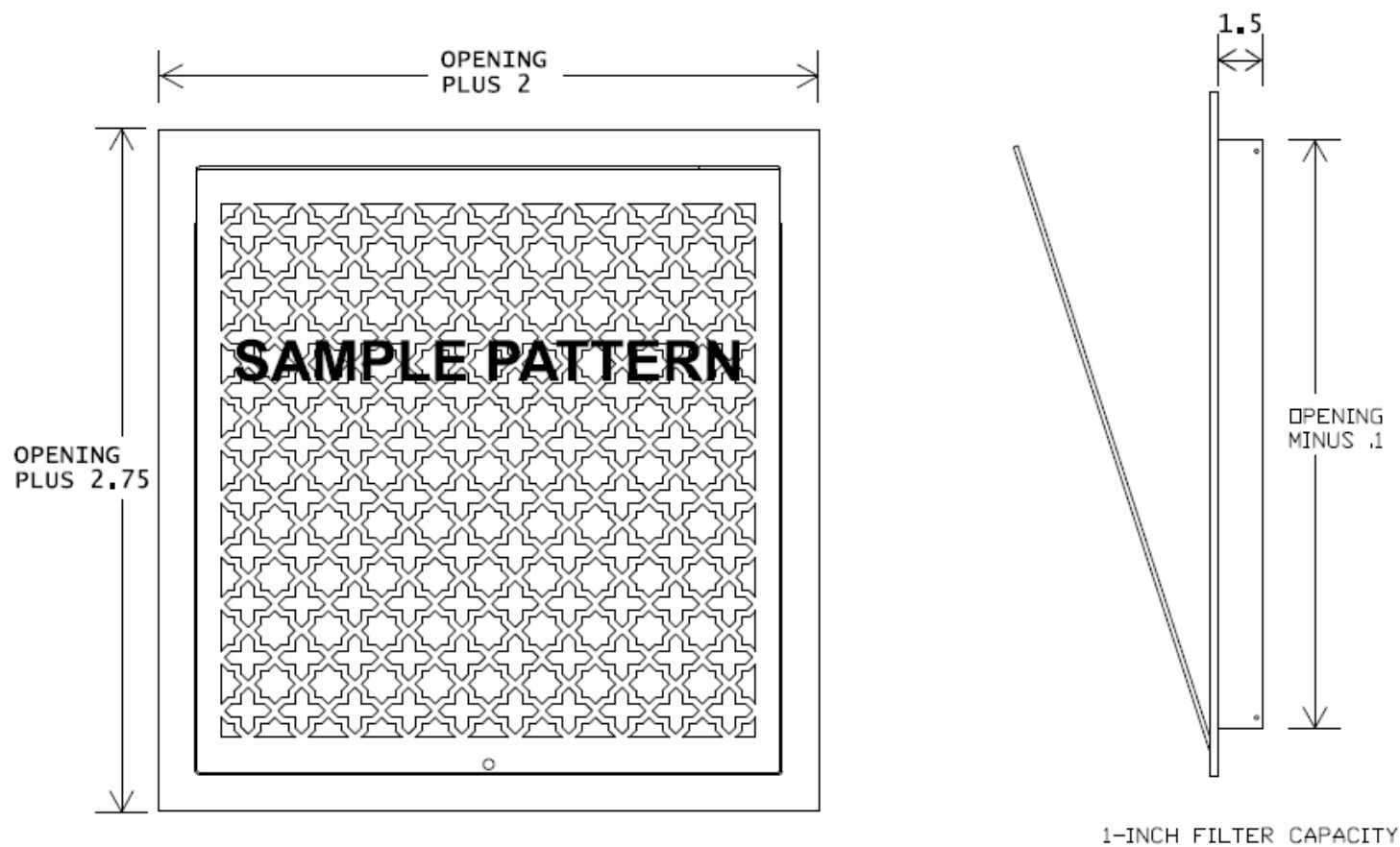
### Typical Air Return Grille:



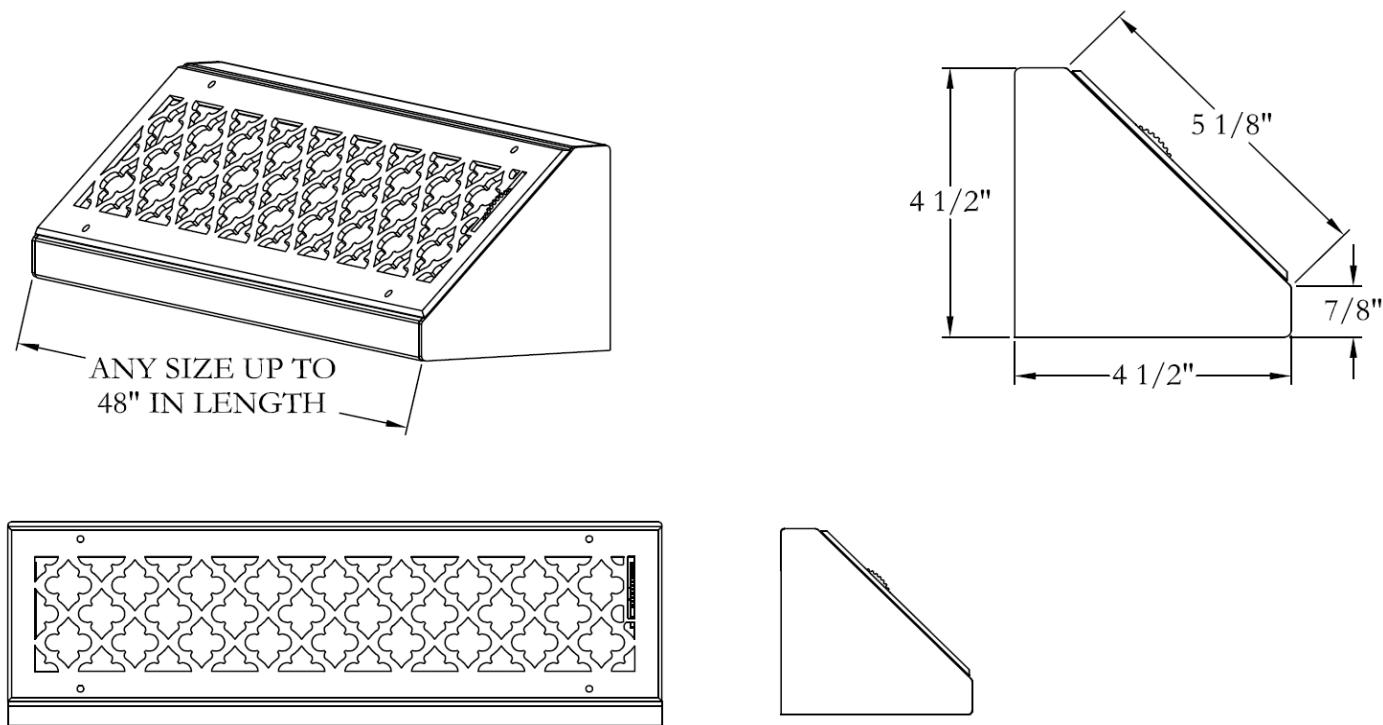
NOTE: if the dimension of the opening is less than or equal to 14" (width/height) use TYPICAL SUPPLY drawing for specification.

For additional information related to measuring, please refer to <https://ventcoversunlimited.com/measuring/> or contact us at [ventcoversunlimited@gmail.com](mailto:ventcoversunlimited@gmail.com)

**Typical Hinged Air Return (Return Air Filter Frame):**



**Typical Baseboard Register or Return:**



For additional information related to measuring, please refer to <https://ventcoversunlimited.com/measuring/> or contact us at [ventcoversunlimited@gmail.com](mailto:ventcoversunlimited@gmail.com)

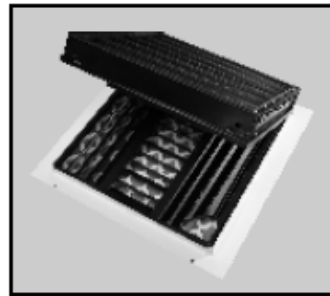
## Optional Accessories

**Air Deflectors:** (Specify direction North/South or East/West for 1-Way)

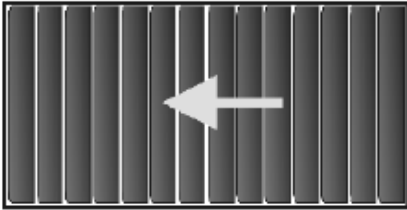
### RECTANGLE TYPE



1 Way "H"



### SQUARE TYPE



1 Way "V"



3 Way



2 Way



4 Way



SQ 1 Way



SQ 3 Way



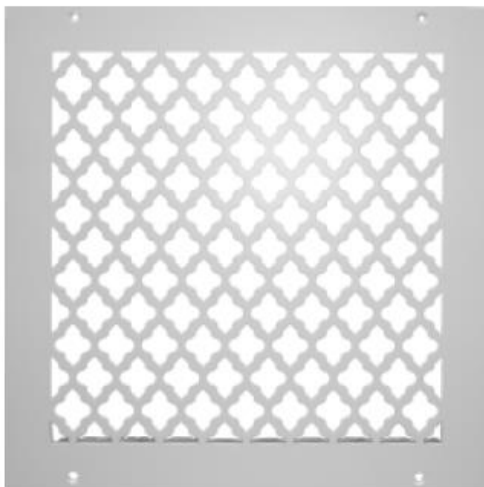
SQ 2 Way



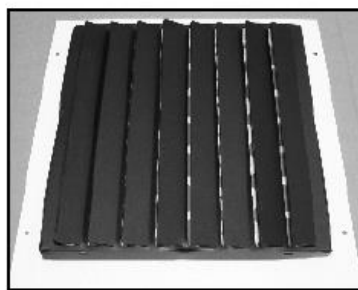
SQ 4 Way

**Concealment Louvers:** (Hides Ductwork)

GRILLE SHOWN WITHOUT  
CONCEALMENT LOUVER

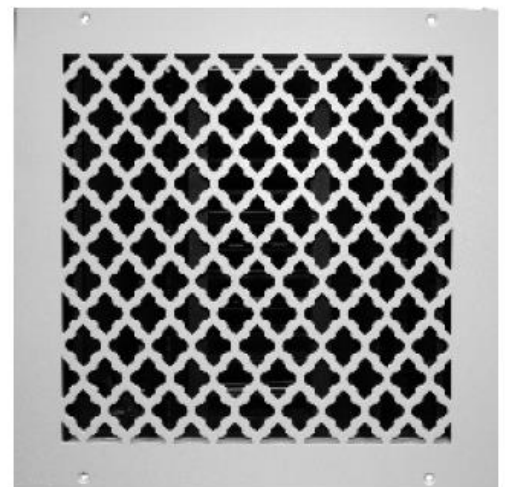


TUSCAN  
SAMPLE PATTERN



TYPICAL CONCEALMENT  
LOUVER INSTALLATION

GRILLE SHOWN WITH  
CONCEALMENT LOUVER

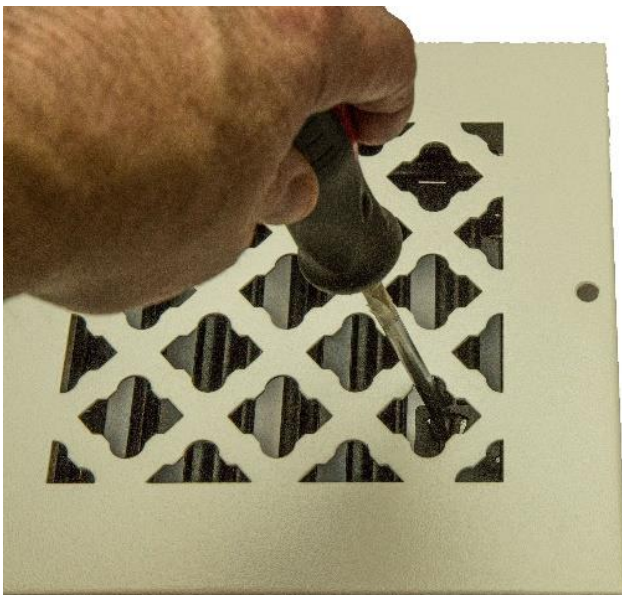
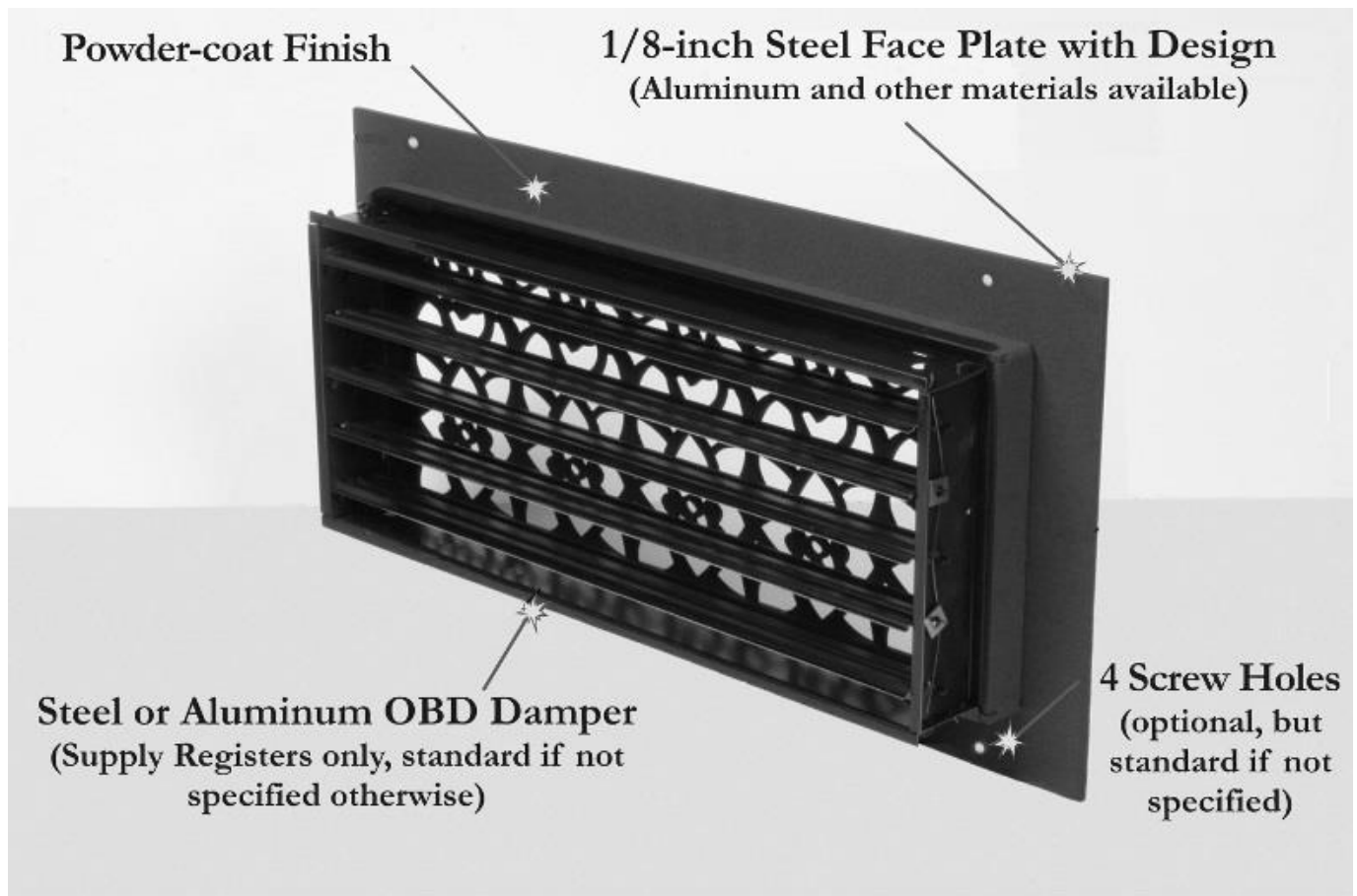


TUSCAN  
SAMPLE PATTERN

For additional information related to measuring, please refer to <https://ventcoversunlimited.com/measuring/> or contact us at [ventcoversunlimited@gmail.com](mailto:ventcoversunlimited@gmail.com)



**Opposing Blade Damper (OBD):** (Allow On/Off control of airflow)



To adjust the damper, simply insert a flat head screwdriver into the control as pictured. The lack of a lever that protrudes from the face of the register is by design for aesthetics.



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**Beveled Edge:** Useful in softening the appearance of any supply or return, or simply preventing a stubbed toe on a floor grille, our bevel edge is affordable and useful.



**Mesh Backer:** Often our products are used in outdoor areas where bugs may have access. The mesh backer adds an important barrier on any product when the need arises.



**Solid Backer:** Often our products are used in outdoor areas where bugs may have access. The mesh backer adds an important barrier on any product when the need arises.



**Speaker Cloth:** Typically offered in either black or white, the speaker cloth backer transforms our product into amazing speaker grilles in any size or shape.

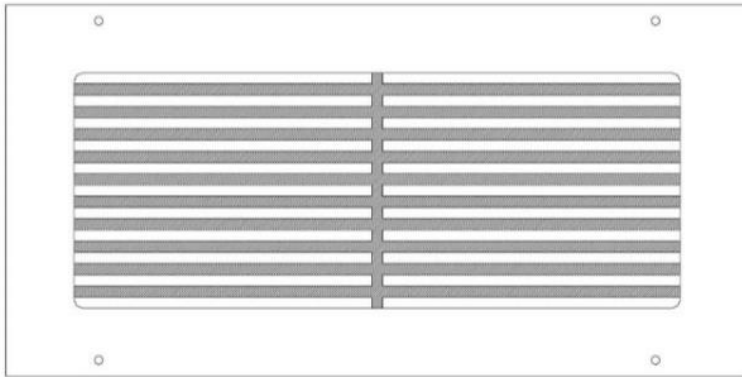
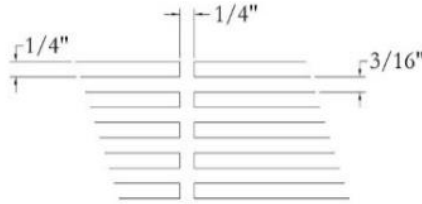
## Pattern Detail Measurements & Air Flow Performance Data

(Data on Additional Designs Available Upon Request)

**Pro-Linear:** (Pattern Openness: 51%)

### PATTERN DETAIL MEASUREMENTS

NOTE: MEASUREMENTS ARE APPROXIMATE AND WILL VARY WITH REGISTER SIZE.

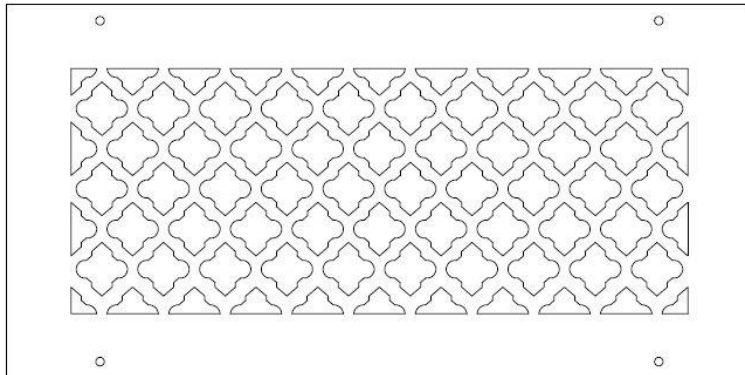
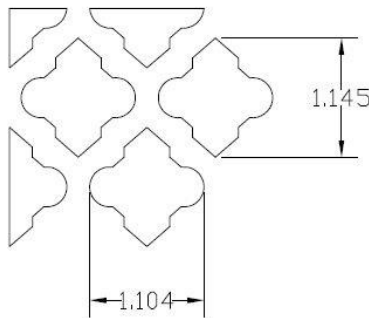


Air Flow Performance Data					
Velocity Static Pressure	250 0.017	500 0.034	750 0.052	1000 0.069	1500 0.104
Size	CFM				
6x6 .25 ft <sup>2</sup>	36	74	108	148	220
8x8 .44 ft <sup>2</sup>	64	128	192	256	384
10x10 .69 ft <sup>2</sup>	100	200	300	400	600
12x12 1.0 ft <sup>2</sup>	144	288	432	576	880
14x14 1.36 ft <sup>2</sup>	196	392	588	784	1176
8x6 .33 ft <sup>2</sup>	48	96	144	192	288
10x6 .42 ft <sup>2</sup>	60	120	180	240	360
12x6 .5 ft <sup>2</sup>	72	144	216	288	432
14x6 .58 ft <sup>2</sup>	84	168	252	336	504
16x6 .67 ft <sup>2</sup>	96	192	288	384	576
18x6 .75 ft <sup>2</sup>	108	216	324	432	648
20x6 .83 ft <sup>2</sup>	120	240	360	480	720
10x8 .56 ft <sup>2</sup>	80	160	240	320	480
12x8 .67 ft <sup>2</sup>	96	192	288	384	576
14x8 .78 ft <sup>2</sup>	112	224	336	448	672
8x4 .22 ft <sup>2</sup>	32	64	96	128	192
10x4 .28 ft <sup>2</sup>	40	80	120	160	240
12x4 .33 ft <sup>2</sup>	48	96	144	192	288

**Tuscan:** (Pattern Openness: 65%)

### PATTERN DETAIL MEASUREMENTS

NOTE: measurements are approximate and will vary with register size.

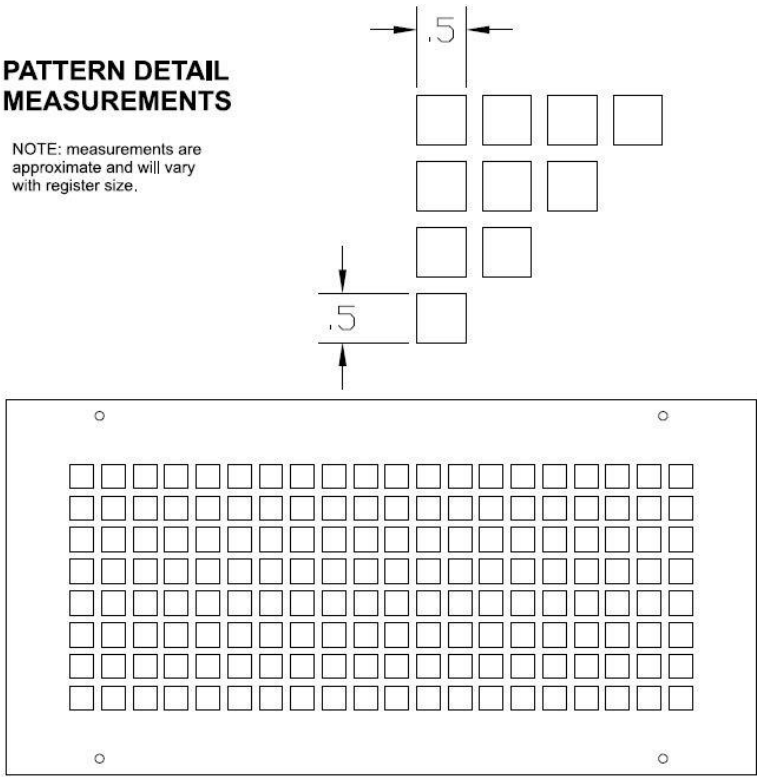


TUSCAN DESIGN AIR FLOW / PERFORMANCE DATA					
Velocity Static Pressure	250 0.015	500 0.03	750 0.046	1000 0.061	1500 0.093
SIZE	CUBIC FEET PER MINUTE (CFM)				
6x6 (.25ft <sup>2</sup> )	40	80	120	160	235
8x8 (.44ft <sup>2</sup> )	70	140	210	280	425
10x10 (.69ft <sup>2</sup> )	110	220	330	440	660
12x12 (1.0ft <sup>2</sup> )	160	320	475	635	955
14x14 (1.36ft <sup>2</sup> )	216	431	647	862	1294
8x6 (.33ft <sup>2</sup> )	53	106	158	211	317
10x6 (.42ft <sup>2</sup> )	66	132	198	264	396
12x6 (.5ft <sup>2</sup> )	79	158	238	317	475
14x6 (.58ft <sup>2</sup> )	92	185	277	370	554
16x6 (.67ft <sup>2</sup> )	106	211	317	422	634
18x6 (.75ft <sup>2</sup> )	119	238	356	475	713
20x6 (.83ft <sup>2</sup> )	132	264	396	528	792
10x8 (.56ft <sup>2</sup> )	88	176	264	352	528
12x8 (.67ft <sup>2</sup> )	106	211	317	422	634
14x8 (.78ft <sup>2</sup> )	123	246	370	493	739
8x4 (.22ft <sup>2</sup> )	35	70	106	141	211
10x4 (.28ft <sup>2</sup> )	44	88	132	176	264
12x4 (.33ft <sup>2</sup> )	53	106	158	211	317

For additional information related to measuring, please refer to <https://ventcoversunlimited.com/measuring/> or contact us at [ventcoversunlimited@gmail.com](mailto:ventcoversunlimited@gmail.com)

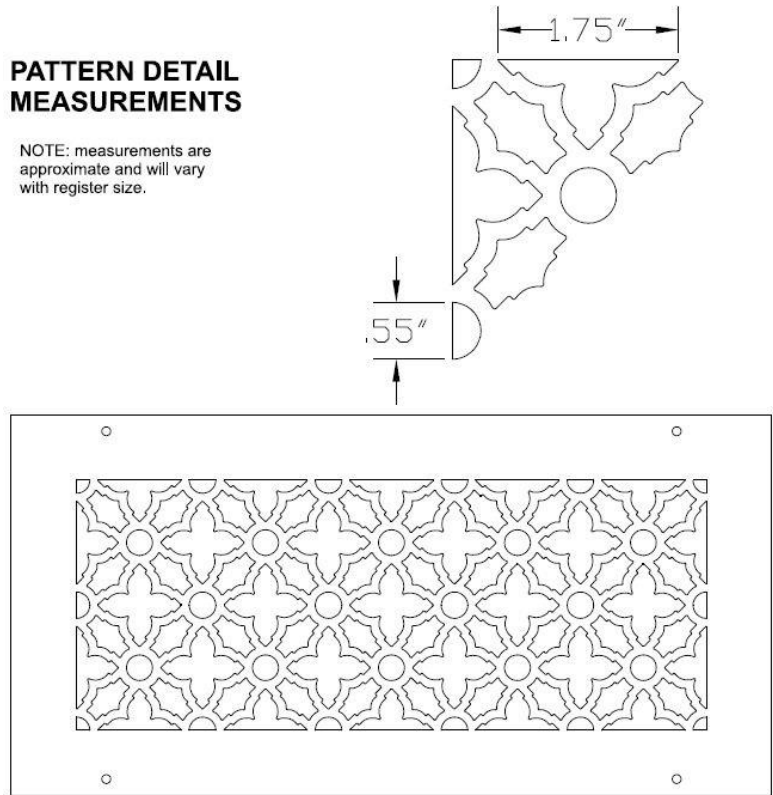


**Square: (Pattern Openness: 61%)**



SQUARE DESIGN AIR FLOW / PERFORMANCE DATA					
Velocity	250	500	750	1000	1500
Static Pressure	0.009	0.018	0.027	0.036	0.055
SIZE	CUBIC FEET PER MINUTE (CFM)				
6x6 (.25ft <sup>2</sup> )	45	92	135	185	275
8x8 (.44ft <sup>2</sup> )	80	160	240	320	480
10x10 (.69ft <sup>2</sup> )	125	250	375	500	750
12x12 (1.0ft <sup>2</sup> )	180	360	540	720	1100
14x14 (1.36ft <sup>2</sup> )	245	490	735	980	1470
8x6 (.33ft <sup>2</sup> )	60	120	180	240	360
10x6 (.42ft <sup>2</sup> )	75	150	225	300	450
12x6 (.5ft <sup>2</sup> )	90	180	270	360	540
14x6 (.58ft <sup>2</sup> )	105	210	315	420	630
16x6 (.67ft <sup>2</sup> )	120	240	360	480	720
18x6 (.75ft <sup>2</sup> )	135	270	405	540	810
20x6 (.83ft <sup>2</sup> )	150	300	450	600	900
10x8 (.56ft <sup>2</sup> )	100	200	300	400	600
12x8 (.67ft <sup>2</sup> )	120	240	360	480	720
14x8 (.78ft <sup>2</sup> )	140	280	420	560	840
8x4 (.22ft <sup>2</sup> )	40	80	120	160	240
10x4 (.28ft <sup>2</sup> )	50	100	150	200	300
12x4 (.33ft <sup>2</sup> )	60	120	180	240	360

**Traditional: (Pattern Openness: 63%)**



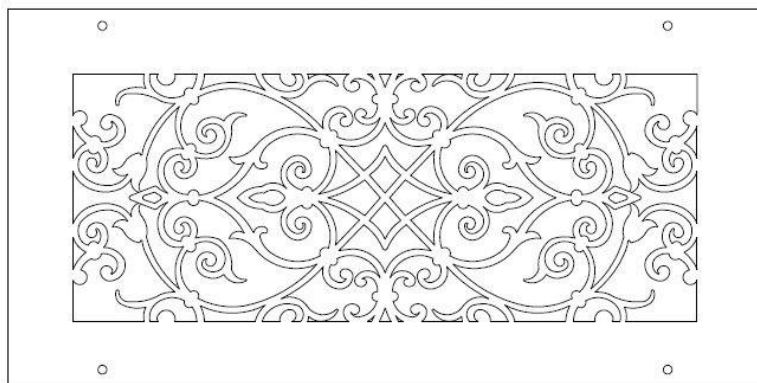
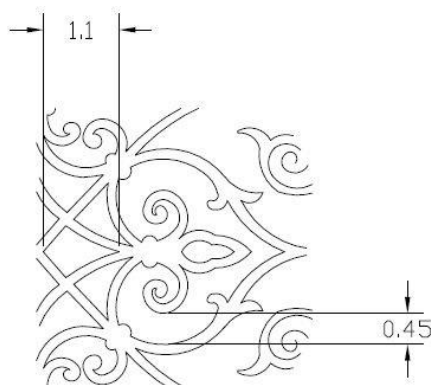
TRADITIONAL DESIGN AIR FLOW / PERFORMANCE DATA					
Velocity	250	500	750	1000	1500
Static Pressure	0.015	0.03	0.046	0.061	0.093
SIZE	CUBIC FEET PER MINUTE (CFM)				
6x6 (.25ft <sup>2</sup> )	40	80	120	160	235
8x8 (.44ft <sup>2</sup> )	70	140	210	280	425
10x10 (.69ft <sup>2</sup> )	110	220	330	440	660
12x12 (1.0ft <sup>2</sup> )	160	320	475	635	955
14x14 (1.36ft <sup>2</sup> )	216	431	647	862	1294
8x6 (.33ft <sup>2</sup> )	53	106	158	211	317
10x6 (.42ft <sup>2</sup> )	66	132	198	264	396
12x6 (.5ft <sup>2</sup> )	79	158	238	317	475
14x6 (.58ft <sup>2</sup> )	92	185	277	370	554
16x6 (.67ft <sup>2</sup> )	106	211	317	422	634
18x6 (.75ft <sup>2</sup> )	119	238	356	475	713
20x6 (.83ft <sup>2</sup> )	132	264	396	528	792
10x8 (.56ft <sup>2</sup> )	88	176	264	352	528
12x8 (.67ft <sup>2</sup> )	106	211	317	422	634
14x8 (.78ft <sup>2</sup> )	123	246	370	493	739
8x4 (.22ft <sup>2</sup> )	35	70	106	141	211
10x4 (.28ft <sup>2</sup> )	44	88	132	176	264
12x4 (.33ft <sup>2</sup> )	53	106	158	211	317



## Corinthian: (Pattern Openness: 69%)

### PATTERN DETAIL MEASUREMENTS

NOTE: measurements are approximate and will vary with register size.



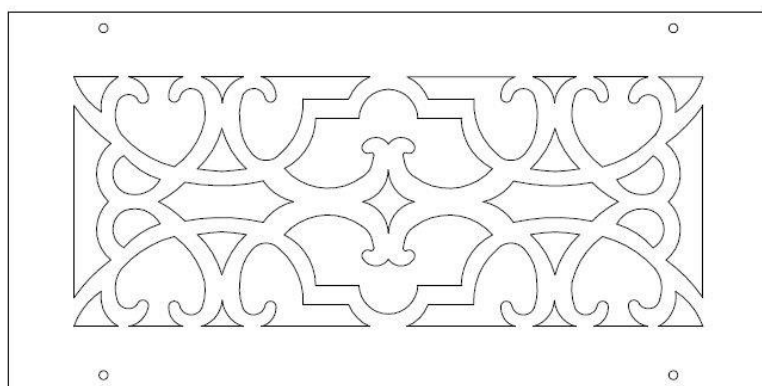
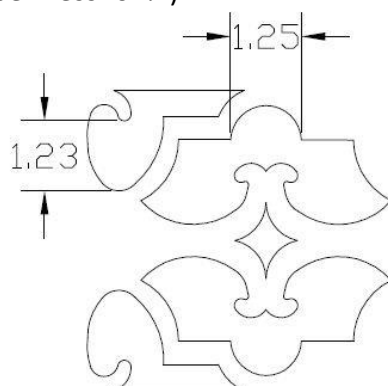
### CORINTHIAN DESIGN AIR FLOW / PERFORMANCE DATA

Velocity	250	500	750	1000	1500
Static Pressure	0.017	0.011	0.0175	0.023	0.035
CUBIC FEET PER MINUTE (CFM)					
SIZE					
6x6 (.25ft <sup>2</sup> )	42	85	125	170	255
8x8 (.44ft <sup>2</sup> )	75	150	225	300	450
10x10 (.69ft <sup>2</sup> )	115	235	350	465	700
12x12 (1.0ft <sup>2</sup> )	167	335	500	680	1020
14x14 (1.36ft <sup>2</sup> )	225	461	686	911	1372
8x6 (.33ft <sup>2</sup> )	55	113	168	223	336
10x6 (.42ft <sup>2</sup> )	69	141	210	279	420
12x6 (.5ft <sup>2</sup> )	83	169	252	335	504
14x6 (.58ft <sup>2</sup> )	97	197	294	391	588
16x6 (.67ft <sup>2</sup> )	110	226	336	446	672
18x6 (.75ft <sup>2</sup> )	124	254	378	502	756
20x6 (.83ft <sup>2</sup> )	138	282	420	558	840
10x8 (.56ft <sup>2</sup> )	92	188	280	372	560
12x8 (.67ft <sup>2</sup> )	110	226	336	446	672
14x8 (.78ft <sup>2</sup> )	129	263	392	521	784
8x4 (.22ft <sup>2</sup> )	37	75	112	149	224
10x4 (.28ft <sup>2</sup> )	46	94	140	186	280
12x4 (.33ft <sup>2</sup> )	55	113	168	223	336

## Renaissance: (Pattern Openness: 61%)

### PATTERN DETAIL MEASUREMENTS

NOTE: measurements are approximate and will vary with register size.

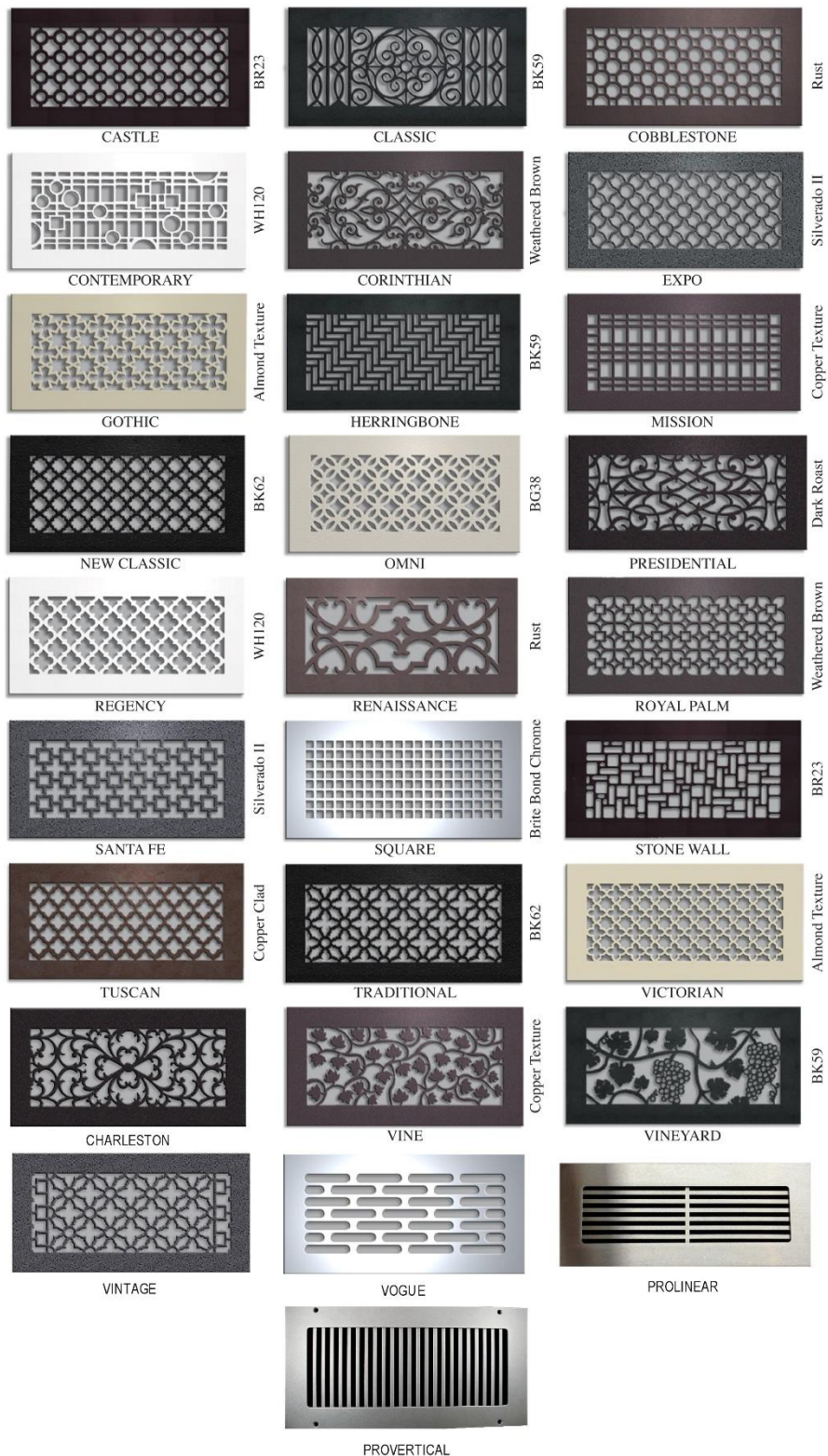


### RENAISSANCE DESIGN AIR FLOW / PERFORMANCE DATA

Velocity	250	500	750	1000	1500
Static Pressure	0.02	0.042	0.063	0.084	0.126
CUBIC FEET PER MINUTE (CFM)					
SIZE					
6x6 (.25ft <sup>2</sup> )	38	75	115	155	230
8x8 (.44ft <sup>2</sup> )	68	135	205	270	405
10x10 (.69ft <sup>2</sup> )	105	210	315	425	635
12x12 (1.0ft <sup>2</sup> )	155	305	460	610	915
14x14 (1.36ft <sup>2</sup> )	211	415	626	830	1245
8x6 (.33ft <sup>2</sup> )	52	102	153	203	305
10x6 (.42ft <sup>2</sup> )	65	127	192	254	381
12x6 (.5ft <sup>2</sup> )	77	152	230	305	457
14x6 (.58ft <sup>2</sup> )	90	178	268	356	534
16x6 (.67ft <sup>2</sup> )	103	203	307	407	610
18x6 (.75ft <sup>2</sup> )	116	229	345	457	686
20x6 (.83ft <sup>2</sup> )	129	254	383	508	762
10x8 (.56ft <sup>2</sup> )	86	169	256	339	508
12x8 (.67ft <sup>2</sup> )	103	203	307	407	610
14x8 (.78ft <sup>2</sup> )	121	237	358	474	712
8x4 (.22ft <sup>2</sup> )	34	68	102	136	203
10x4 (.28ft <sup>2</sup> )	43	85	128	169	254
12x4 (.33ft <sup>2</sup> )	52	102	153	203	305

For additional information related to measuring, please refer to <https://ventcoversunlimited.com/measuring/> or contact us at [ventcoversunlimited@gmail.com](mailto:ventcoversunlimited@gmail.com)

## Design Options



**Not all designs are recommended for floor application and will require a signed "floor disclaimer" if requested without screw holes.**

*Charleston, Classic, Corinthian, Pinecone, Presidential, Renaissance, Vine, and Vineyard not recommended for floor application.*

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## Finish Options



Almond Texture



BG38



BK59



GR06-Silver



BR23



Copper Clad



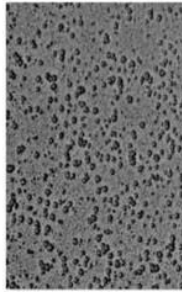
Copper Texture



Dark Roast



Rust-BR47



Silverado



Weathered Brown



WH120



Oil Rubbed Bronze



Antiqued Bronze



Bronze



Brushed Stainless  
Steel (+40%)

WH120 (White) has a built-in primer  
and is easily painted