

# VanAir™ Ventilated Door Door Series

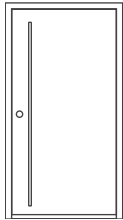
<b>FACES:</b>	Wood veneer Prefinished smooth or embossed hardboard Paint grade hardboard
<b>SUBSTRATE:</b>	Engineered wood composites
<b>CORE:</b>	Engineered wood composites and acoustic foam
<b>VENTILATION SLOT:</b>	Wood and composite material matching with faces
<b>STILES:</b>	Mill option clear or finger-joint softwood – AWS Type A solid wood
<b>RAILS:</b>	Mill option wood or composite material
<b>ASSEMBLY:</b>	Non-bonded (loose lay)
<b>ADHESIVES:</b>	Type 2
<b>MAXIMUM SIZE:</b>	4'0" x 10'0" (1219mm x 3048mm) Contact factory for sizing options.
<b>THICKNESS:</b>	1-3/8" (35mm)
<b>WARRANTY:</b>	One (1) Year; for interior use only. SEE WARRANTY TERMS AND CONDITIONS. Possible extended warranties available; contact factory for options.
<b>STANDARDS:</b>	Performance attributes meet or exceed WDMA IS-1A Extra Heavy Duty standards when specified with blocking for surface applied hardware without through bolts.
<b>FIRE-RATING:</b>	Not applicable
<b>ACOUSTICAL RATING:</b>	See page 3 of 6
<b>ENVIRONMENTAL ATTRIBUTES:</b>	This product is manufactured with pre-consumer recycled material. For additional information on product contribution, please refer to the GreenDor™ Contribution Sheets.



## Manufacturing Options

<b>BLOCKING:</b>	Lock blocks included. Special blocking options may be specified (reference WDMA I.S.1A blocking options HB-1 through HB-8). Additional blocking may affect STC rating.
<b>MACHINING:</b>	Machining for hardware, applied moldings, plant-ons, and decorative routing. Hardware cutouts shall be factory machined from manufacturers' templates and shop drawings.
<b>TRANSPARENT FINISH:</b>	WDMA TR8 / AWS System 9 – UV Cured Acrylated Polyester/Urethane finishes in standard and custom match stains <b>Options:</b> Other finish systems available
<b>OPAQUE FINISH:</b>	Factory painting in standard and custom match colors <b>Options:</b> Standard or color tinted priming available

## Standard Construction



**VanAir**  
**160 IN<sup>2</sup> VENTILATION AREA\***

Tests conducted independently in accordance with ASTM Standards on 3'0" x 7'0" x 1-3/8" VanAir Door with:

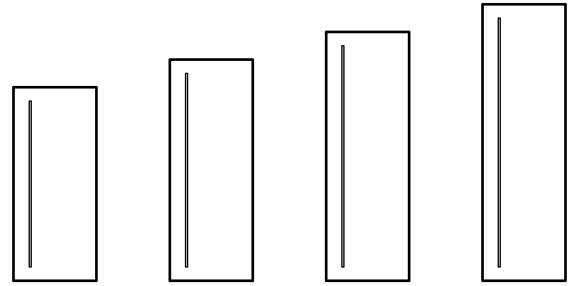
1. No acoustic foam in air channel
2. No perimeter seals
3. Half inch (1/2") undercut

**Airflow Performance, Flow Rate vs Pressure**  
ASTM E779-10 Determining Air Leakage Rate by Fan Pressurization

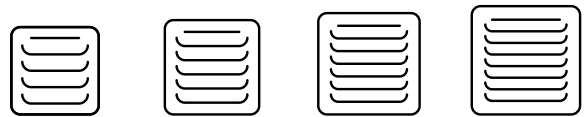
\* Ventilation area is the equivalent grille/louver area. The unrestricted free/open area for airflow is equal to 50% of the ventilation area.

† Compared to grilles/louvers with 50% free/open area.

### Airflow Comparison VanAir Door vs Grille/Louver



VanAir Door Height	6'8", 7'0"	8'0"	9'0"	10'0"
VanAir Ventilation Area*	160 in <sup>2</sup>	186 in <sup>2</sup>	214 in <sup>2</sup>	240 in <sup>2</sup>

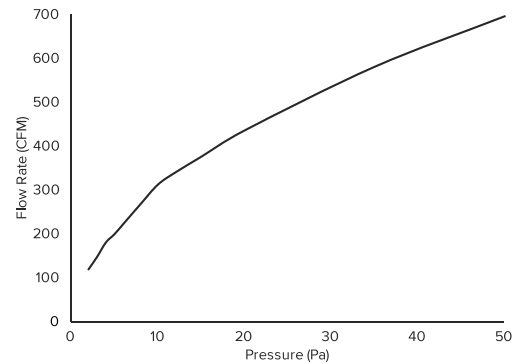


Equivalent Grille/Louver Size†	12.5" x 12.5"	13.5" x 13.5"	14.5" x 14.5"	15.5" x 15.5"
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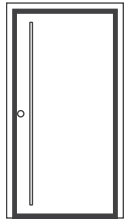
### Airflow Performance

Pressure (Pa)	Airflow (CFM)
50	696
35	581
20	436
15	376
12	340
10	312
8	268
6	222
5	199
4	180
3	148
2	119

### Flow Rate vs Pressure



## Sound Privacy Option (Available for doors 2'6" – 4'0" wide)



VanAir  
**80 IN<sup>2</sup> VENTILATION AREA\***  
**25STC** SOUND PRIVACY

Tests conducted independently in accordance with ASTM Standards on 3'0" x 7'0" x 1-3/8" VanAir Door with:

1. Acoustic foam in air channel
2. Full perimeter seal (PEMCO STCSET-1A Seal Set)

**Airflow Performance, Flow Rate vs Pressure**  
ASTM E779-10 Determining Air Leakage Rate by Fan Pressurization

\* Ventilation area is the equivalent grille/louver area. The unrestricted free/open area for airflow is equal to 50% of the ventilation area.

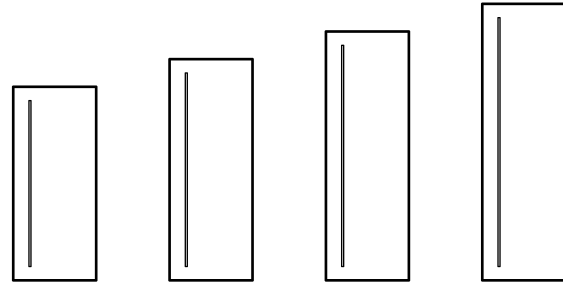
† Compared to grilles/louvers with 50% free/open area.

**STC COMPARISON**

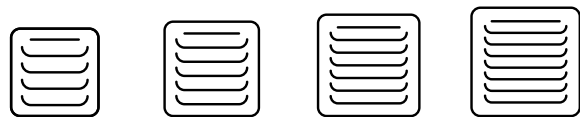
SOLID CORE  
**28STC** SOUND PRIVACY

HOLLOW CORE  
**23STC** SOUND PRIVACY

### Airflow Comparison VanAir Door vs Grille/Louver



VanAir Door Height	6'8", 7'0"	8'0"	9'0"	10'0"
VanAir Ventilation Area*	80 in <sup>2</sup>	94 in <sup>2</sup>	106 in <sup>2</sup>	120 in <sup>2</sup>

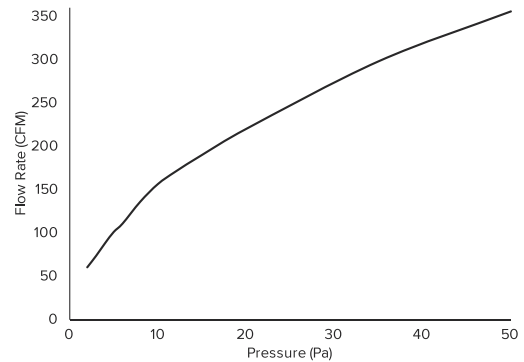


Equivalent Grille/Louver Size†	9" x 9"	9.5" x 9.5"	10.25" x 10.25"	11" x 11"
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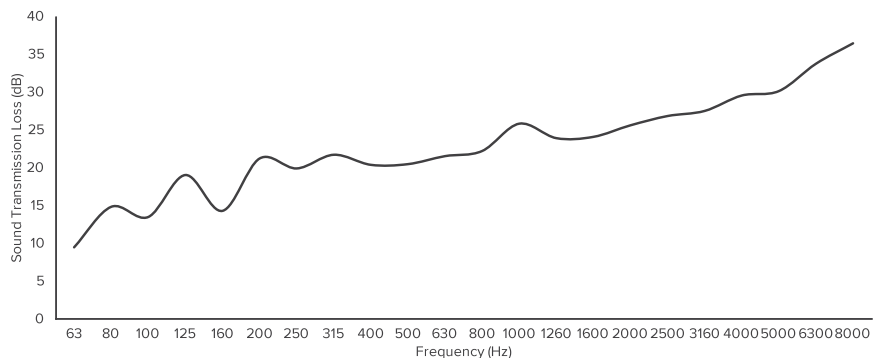
### Airflow Performance

Pressure (Pa)	Airflow (CFM)
50	355
35	297
20	219
15	189
12	170
10	156
8	136
6	110
5	100
4	87
3	73
2	60

### Flow Rate vs Pressure



### Sound Transmission Loss Curve



### Sound Transmission Loss Curve

ASTM E90-09 Laboratory Measurements of Airborne Sound Transmission Loss of Building Partition Elements

ASTM E413-10 Classification for Rating Sound Insulation

## Door and Ventilation Slot Dimensions (Doors with heights up to 6'8")

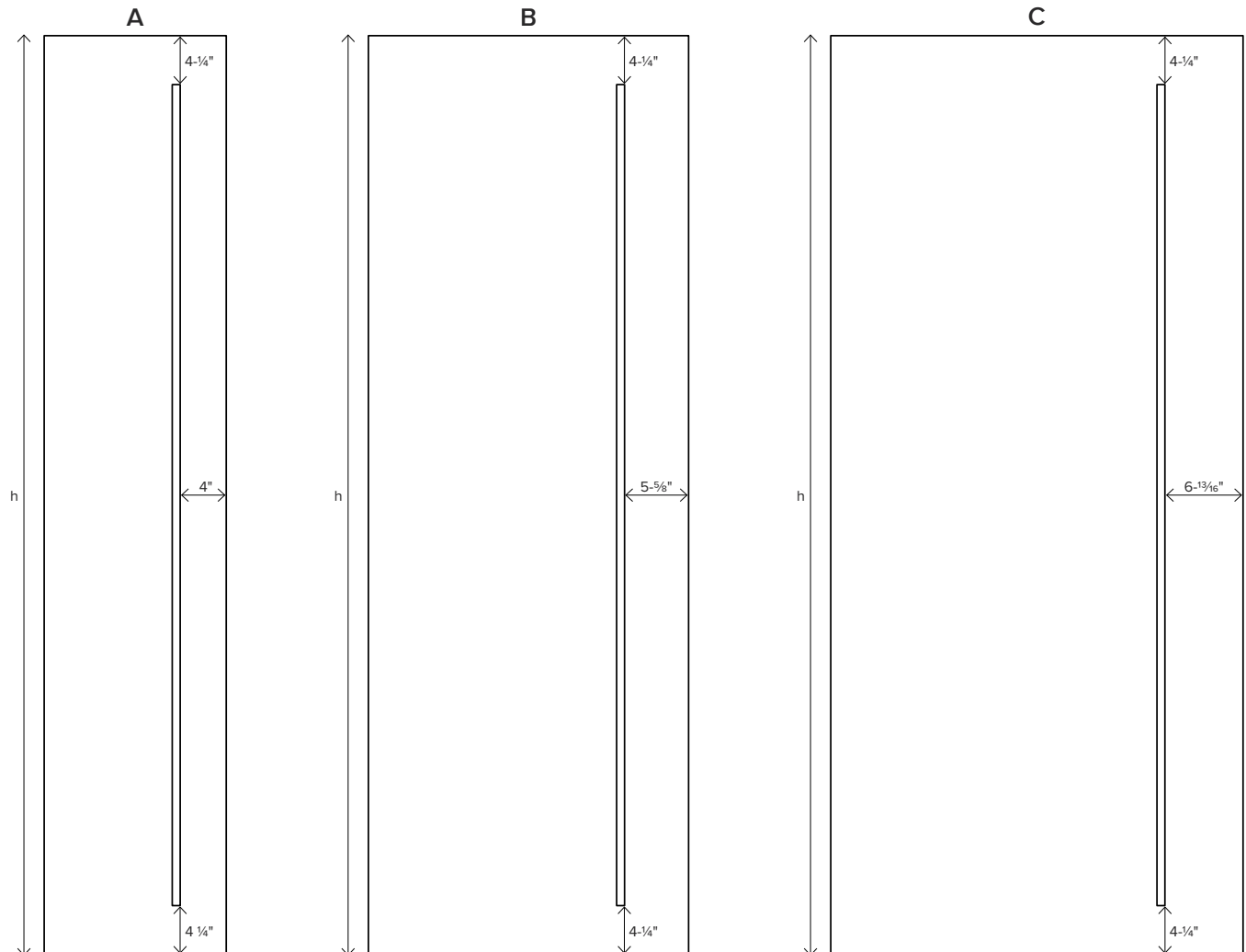
Reference the chart for standard sizes to the drawings below for the placement of the ventilation slot

Standard ventilation slot width is  $\frac{7}{8}$ "

Custom sizes available

Sound Privacy Option available for doors 2'6"–4'0" wide and 6'8" and 7'0"–4'0" heights

Width (w)	Height (h)					Additional Details
	≥ 6'8"	7'0"	8'0"	9'0"	10'0"	
1'0"	A	D			Doors narrower than 1'8" in width are limited to pull hardware and unable to accept standard 2- $\frac{3}{8}$ " and 2- $\frac{3}{4}$ " hardware.	
1'2"						
1'4"						
1'6"	B	E				
1'8"						
1'10"						
2'0"						
2'2"						
2'4"	C	F			Available with Sound Privacy Option	
2'6"						
2'8"						
2'10"						
3'0"						
3'2"						
3'4"						
3'6"						
3'8"						
3'10"						
4'0"						



## Door and Ventilation Slot Dimensions (Doors with heights of 7'0" – 10'0")

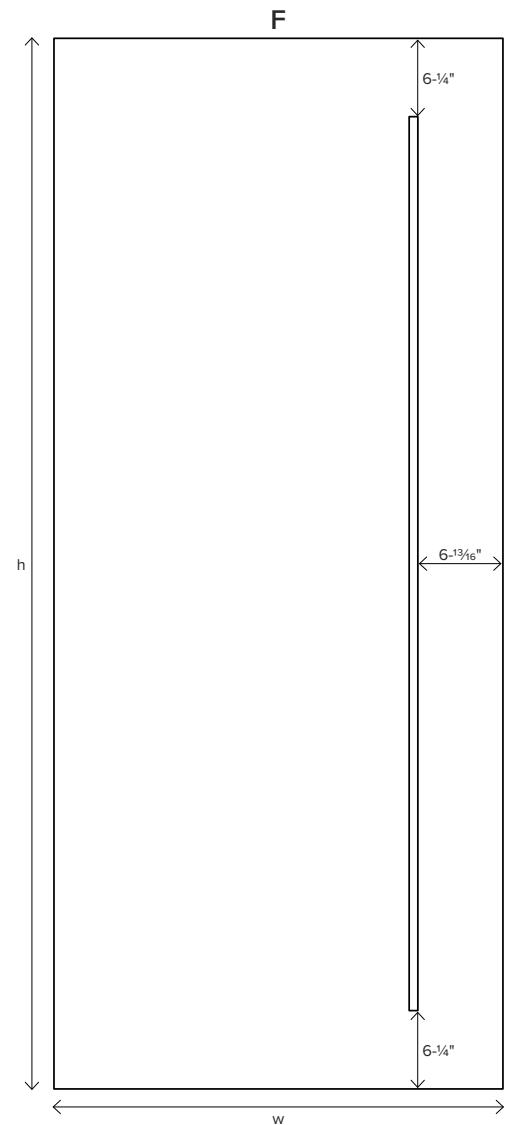
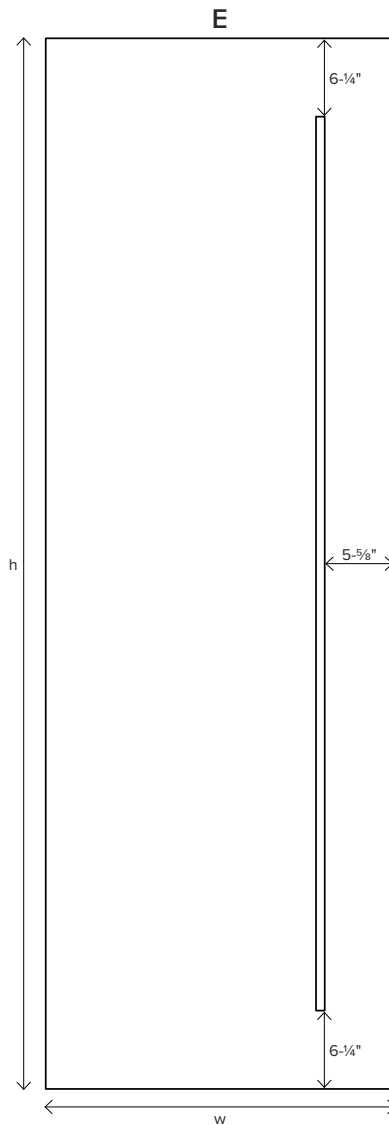
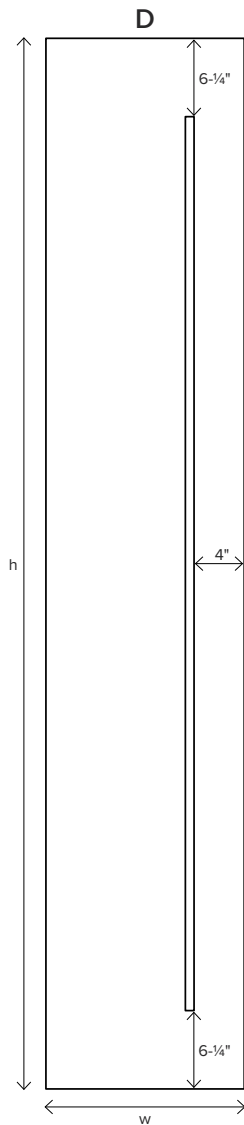
Reference the chart for standard sizes to the drawings below for the placement of the ventilation slot

Standard ventilation slot width is  $\frac{7}{8}$ "

Custom sizes available

Sound Privacy Option available for doors 2'6"–4'0" wide and 6'8" and 7'0"–4'0" heights

Width (w)	Height (h)					Additional Details
	≥ 6'8"	7'0"	8'0"	9'0"	10'0"	
1'0"	A	D				Doors narrower than 1'8" in width are limited to pull hardware and unable to accept standard 2- $\frac{3}{8}$ " and 2- $\frac{3}{4}$ " hardware.
1'2"						
1'4"						
1'6"	B	E				
1'8"						
1'10"						
2'0"						
2'2"						
2'4"						
2'6"	C	F				Available with Sound Privacy Option
2'8"						
2'10"						
3'0"						
3'2"						
3'4"						
3'6"						
3'8"						
3'10"						
4'0"						



## Handing Detail For Ventilation Slot

