

# SUBMITTAL DATA



## 4500 Series Air Curtain

Modular Industrial Air Curtains for Indoor Use

Horizontal & Vertical Mount Models

For opening height: 16' to 26'- 3" [5 to 8 m] ; width up to 24' [7.5m]



<b>PROJECT:</b>		
<b>ENGINEER:</b>		
<b>CONTRACTOR:</b>		
<b>DISTRIBUTOR:</b>		
<b>SchwankAir MODEL #:</b>	<b>4559</b>	<b>4589</b>
<b>Electric Heat</b>	<b>4559WH</b>	<b>4589WH</b>
<b>Hot Water Heat</b>	<b>4559WH-2</b>	<b>4589WH-2</b>
<b>APPROVED BY:</b>		
<b>DATE:</b>		
<b>APPROVAL #:</b>		

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**SchwankAir 4500 Series Features:**

The SchwankAir 4500 Series air curtain is intended for indoor horizontal or vertical mounting above/ beside building doorway openings: from heights 16' to 26'- 3" [5 to 8 m]; and widths up to 24' [7.5m] .

The 4500 Series air curtain is designed to provide quiet operation and energy savings by effectively separating indoor and outdoor environments, restricting entry of unconditioned air, dust, fumes, and insects. The 4500 Series air curtain can also be used at interior openings /doorways to isolate coolers, clean room environments, and other unconditioned areas.

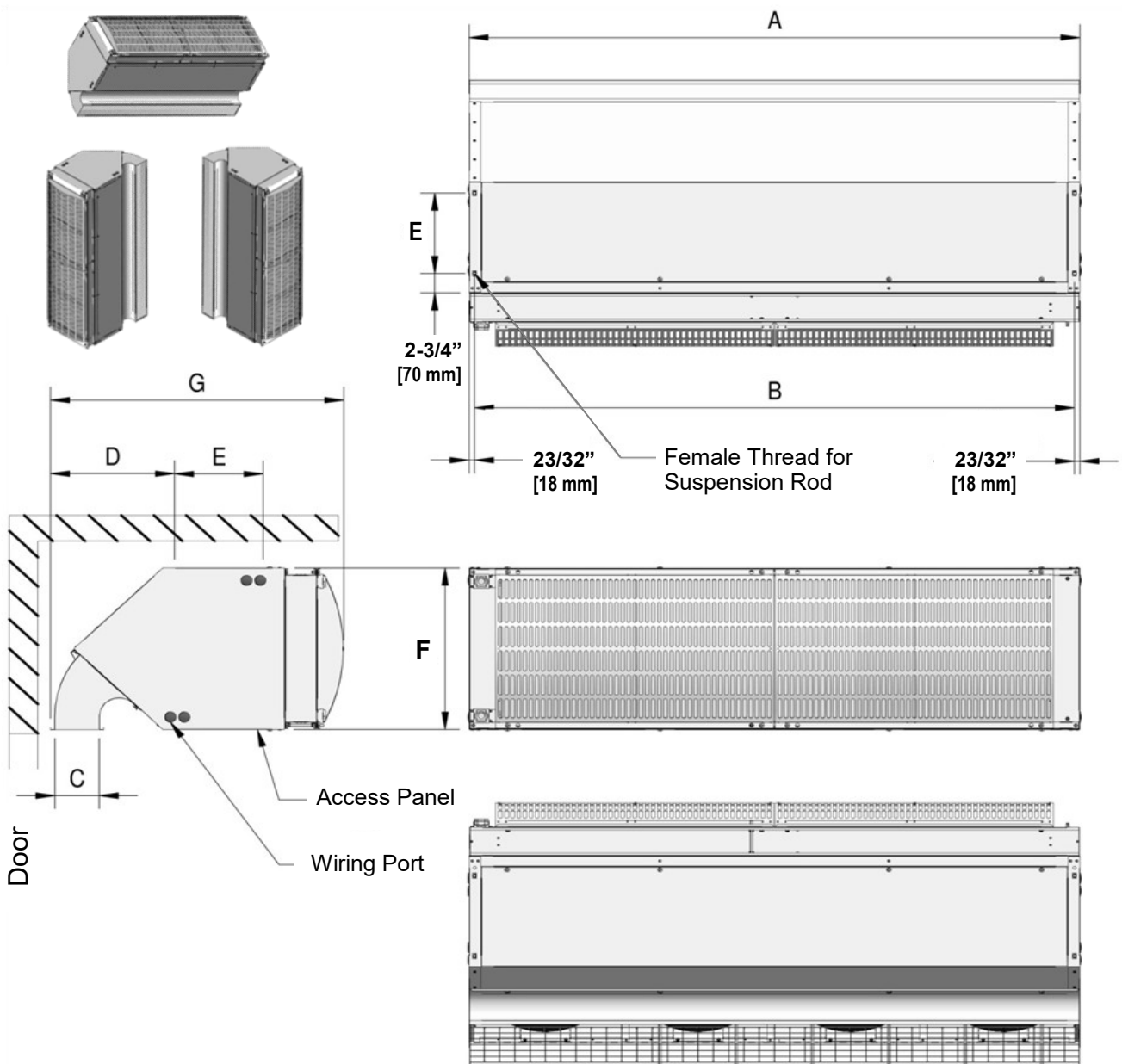
- Available unit widths (nominal): 59, or 89 inches [1500, 2250 mm]
- Multiple units are ganged together to suit opening width
- Galvanized sheet steel construction with durable gray finish
- Units suspend from structure with field supplied hardware
- b-Control (wired remote control) included
  - On/Off control
  - Continuously variable fan speed control
- 230 Vac / single phase / 60 hZ

Certified: CSA SPE-1000  
Meets requirements Rule 2-024 –  
Ontario Electrical Safety Code

# PROJECT QUANTITIES & UNIT DIMENSIONS

## Horizontal, and Left or Right Vertical Orientation

Project Qty	Base Unit	A	B	C	D	E	F	No Heat	Hot Water
								G	G
								Qty:	Qty:
	4559	59 1/16"	57 5/8"	8 7/32"	21 17/32"	17 23/32"	31 13/16"	46 31/32"	51 13/16"
	4589	88 19/32"	87 5/32"						
Metric Units	4559	1500 mm	1464 mm	209 mm	547 mm	450 mm	808 mm	1193 mm	1316 mm
	4589	2250 mm	2214 mm						



## Optional Accessories - Project Quantities:

Project Qty	Accessory	Description / Feature
	Door switch	Regulate fan speed and heat output
	Outdoor thermostat (field supplied)	Basic weather compensation
	Modbus module & software	BMS control & monitoring

# Technical & Performance Specifications

## 4500 Series: Ambient Air Recirculation Models – No Heating Coil

Specifications for:

- 4500WH & 4500WH-2: next pages

### 4559 Quantity on Project:

unit length	ft [m]	4.9 [1.5]				
door width / height	ft [m]	16.4 - 26.2 [5 - 8]				
electrical supply	V/ph/Hz	230/1/60				
max. input current	A	3				
max. input power	HP [kW]	2.53 [1.89]				
weight	lb [kg]	419 [190]				
<b>speed</b>		<b>2V</b>	<b>4V</b>	<b>6V</b>	<b>8V</b>	<b>10V</b>
air volume	cfm [m <sup>3</sup> /h]	1883 [3198]	3892 [6613]	5774 [9809]	7199 [12231]	8450 [14356]
power consumption	kW	0.09	0.27	0.69	1.42	1.89
sound pressure level at 16 ft	dB(A)	38	49	59	66	69

### 4589 Quantity on Project:

unit length	ft [m]	7.4 [2.25]				
door width / height	ft [m]	16.4 - 26.2 [5 - 8]				
electrical supply	V/ph/Hz	230/1/60				
max. input current	A	4				
max. input power	HP [kW]	3.8 [2.83]				
weight	lb [kg]	549 [249]				
<b>speed</b>		<b>2V</b>	<b>4V</b>	<b>6V</b>	<b>8V</b>	<b>10V</b>
air volume	cfm [m <sup>3</sup> /h]	2824 [4797]	5838 [9919]	8660 [14713]	10799 [18347]	12674 [21534]
power consumption	kW	0.14	0.4	1.04	2.13	2.83
sound pressure level at 16 ft	dB(A)	40	50	60	67	70

# 4500WH Series: Hot Water Heating Coil; High Temperature Water; 1 Row Element

Specifications for:

- 4500 No Heat: previous page
- 4500WH-2 next page

## 4559WH Quantity on Project:

unit length	ft [m]	4.9 [1.5]				
door width / height	ft [m]	16.4 - 26.2 [5 - 8]				
electrical supply	V/ph/Hz	230/1/60				
max. input current	A	3				
max. input power	kW	1.89				
weight	lb [kg]	443 [201]				
water range	°F [°C]	176/140 [80/60]				
<b>speed</b>		<b>2V</b>	<b>4V</b>	<b>6V</b>	<b>8V</b>	<b>10V</b>
air volume	cfm [m <sup>3</sup> /h]	1883 [3198]	3892 [6613]	5774 [9809]	7199 [12231]	8450 [14356]
power consumption	kW	0.09	0.27	0.69	1.42	1.89
<b>air inlet temperature</b>		<b>59°F [15°C]</b>				
heating capacity	kBTU/h [kW]	84.2 [24.7]	127 [37.2]	155.3 [45.5]	172.8 [50.7]	186.4 [54.6]
discharge air temperature	°F [°C]	99.5 [37.5]	88.6 [31.4]	83.4 [28.5]	80.8 [27.1]	85.9 [29.9]
water flow rate	USGPH [l/h]	286 [1081]	431 [1631]	527 [1995]	587 [2220]	556 [2105]
water pressure drop	psi [kPa]	0.1 [0.5]	0.1 [1]	0.2 [1.4]	0.3 [1.8]	0.3 [2]
water pressure drop with 2 & 3-port valve	psi [kPa]	0.1 [0.6]	0.2 [1.4]	0.3 [2.1]	0.4 [2.5]	0.4 [2.9]
sound pressure level at 16 ft	dB(A)	38	49	59	66	69

## 4589WH Quantity on Project:

unit length	ft [m]	7.4 [2.25]				
door width / height	ft [m]	16.4 - 26.2 [5 - 8]				
electrical supply	V/ph/Hz	230/1/60				
max. input current	A	4				
max. input power	kW	2.83				
weight	lb [kg]	611 [277]				
water range	°F [°C]	176/140 [80/60]				
<b>speed</b>		<b>2V</b>	<b>4V</b>	<b>6V</b>	<b>8V</b>	<b>10V</b>
air volume	cfm [m <sup>3</sup> /h]	2824 [4797]	5838 [9919]	8660 [14713]	10799 [18347]	12674 [21534]
power consumption	kW	0.14	0.4	1.04	2.13	2.83
<b>air inlet</b>		<b>59°F [15°C]</b>				
heating capacity	kBTU/h [kW]	138.3 [40.5]	211.2 [61.9]	260 [76.2]	290.2 [85]	313.6 [91.9]
discharge air temperature	°F [°C]	103.4 [39.6]	91.8 [33.2]	86.2 [30.1]	83.3 [28.5]	88.2 [31.2]
water flow rate	USGPH [l/h]	469 [1776]	717 [2713]	882 [3339]	985 [3727]	943 [3571]
water pressure drop	psi [kPa]	0.2 [1.5]	0.5 [3.3]	0.7 [4.9]	0.9 [6]	1 [6.9]
water pressure drop with 2 & 3-port valve	psi [kPa]	0.3 [2]	0.7 [4.5]	1 [6.7]	1.2 [8.2]	1.4 [9.5]
sound pressure level at 16 ft	dB(A)	40	50	60	67	70

## 4500WH-2 Series: Hot Water Heating Coil; Low Temperature Water; 2 Rows Element

### 4559WH-2 Quantity on Project:

unit length	ft [m]	4.9 [1.5]
door width / height	ft [m]	16.4 - 26.2 [5 - 8]
electrical supply	V/ph/Hz	230/1/60
max. input current	A	3
max. input power	kW	1.89
weight	lb [kg]	456 [207]
water range	°F [°C]	140/104 [60/40]

Specifications for:

- 4500 No Heat: page 5
- 4500WH: previous page

<b>speed</b>		<b>2V</b>	<b>4V</b>	<b>6V</b>	<b>8V</b>	<b>10V</b>
air volume	cfm [m <sup>3</sup> /h]	1883 [3198]	3892 [6613]	5774 [9809]	7199 [12231]	8450 [14356]
power consumption	kW	0.09	0.27	0.69	1.42	1.89
<b>air inlet temperature</b>		<b>59°F [15°C]</b>				
heating capacity	kBTU/h [kW]	81.1 [23.8]	124.2 [36.4]	152.5 [44.7]	170 [49.8]	183.6 [53.8]
discharge air temperature	°F [°C]	98 [36.7]	87.9 [31.1]	82.9 [28.3]	80.4 [26.9]	83.7 [28.7]
water flow rate	USGPH [l/h]	272 [1031]	417 [1580]	512 [1939]	571 [2162]	483 [1828]
water pressure drop	psi [kPa]	0 [0.3]	0.1 [0.6]	0.1 [0.8]	0.2 [1]	0.2 [1.2]
water pressure drop with 2 & 3-port valve	psi [kPa]	0.1 [0.4]	0.1 [1]	0.2 [1.5]	0.3 [1.8]	0.3 [2.1]
sound pressure level at 16 ft	dB(A)	38	49	59	66	69

### 4589WH-2 Quantity on Project:

unit length	ft [m]	7.4 [2.25]
door width / height	ft [m]	16.4 - 26.2 [5 - 8]
electrical supply	V/ph/Hz	230/1/60
max. input current	A	4
max. input power	kW	2.83
weight	lb [kg]	631 [286]
water range	°F [°C]	140/104 [60/40]

<b>speed</b>		<b>2V</b>	<b>4V</b>	<b>6V</b>	<b>8V</b>	<b>10V</b>
air volume	cfm [m <sup>3</sup> /h]	2824 [4797]	5838 [9919]	8660 [14713]	10799 [18347]	12674 [21534]
power consumption	kW	0.14	0.4	1.04	2.13	2.83
<b>air inlet</b>		<b>59°F [15°C]</b>				
heating capacity	kBTU/h [kW]	140.2 [41.1]	220 [64.5]	273.4 [80.1]	306.6 [89.8]	332.4 [97.4]
discharge air temperature	°F [°C]	104 [40]	93.1 [34]	87.6 [30.9]	84.7 [29.3]	87.5 [30.8]
water flow rate	USGPH [l/h]	471 [1783]	739 [2798]	918 [3476]	1030 [3898]	901 [3411]
water pressure drop	psi [kPa]	0.1 [0.8]	0.3 [1.9]	0.4 [2.9]	0.5 [3.6]	0.6 [4.2]
water pressure drop with 2 & 3-port valve	psi [kPa]	0.2 [1.3]	0.5 [3.2]	0.7 [4.8]	0.9 [6]	1 [7]
sound pressure level at 16 ft	dB(A)	40	50	60	67	70