

Magic Aire®

Model HHA Critical Environment Fan Coil

Solutions For a Healthier Environment

One of the ingredients of good healthcare is a great environment. Magic Aire's HHA high static, high filtration, air handling unit provides multiple options for comfort conditioning and the ability to deliver HEPA quality air.



Highlighted Features and Specifications

Precise Load Matching

With integral Variable Frequency Drive technology (VFD)

you can match your load and save more energy!

VFD standard allows building control system's 0-10vdc signal to control fan speed with up to 60% turn down potential. Allows optimization of system for humidity control and occupant comfort, while minimizing sound levels.

- 2 inch double wall, low leak construction
- Exterior Baked on, Textured, Powder Coat finish
- Two Stage Pre-Filter: High Efficiency Particulate Filtration (2 inch MERV 8 and 4 inch MERV 13)
- Optional Final Filter: High Efficiency Particulate Filtration (12 inch MERV 16, HEPA class E12)
- Up to 12 rows of DX, Hydronic or Steam Cooling/Heating
- Slide Out Coil & Drain Pan for ease of service
- Motor Control via potentiometer, keypad or DDC input
- Isolated Fan Sled
- Backward Curved, finely balanced plenum fan with durable finish
- Dual Side Service Access Doors with half-turn latches provide access to all filters, motor, and coils
- Double sloped drain pan and optional antimicrobial coated liners for improved IAQ

PHYSICAL DATA

Model HH		Unit Size						
		04	06	08	12	16	20	25
Nominal Capacity (Tons)		1	1.5	2	3	4	5	6.25
Nominal Capacity (BTU/HR)		12000	18000	24000	36000	48000	60000	75000
Nominal Airflow (CFM)		400	600	800	1200	1600	2000	2500
Fan								
Fan Size		9" Plenum Fan			12.5" Plenum Fan			
Filter								
Quantity / Actual size (in)	2" Pleated (MERV 8)	12H x 29L		12H x 35L		18H x 44L		
	4" Pleated (MERV 13)	12H x 29L		12H x 35L		18H x 44L		
	12" HEPA Type A, 99.975% on 0.3µm, Class 1	12.5H x 25L x 11.5D		12.5H x 31L x 11.5D		18.5H x 40L x 11.5D		
Coil Face Area								
Face Area-Hydronic (sq ft.)	1- Row	1.58	1.79	1.50	2.39	4.03	5.00	-
	2- Row	1.58	1.79	1.56	2.39	3.52	4.38	5.55
	4- Row	1.58	1.79	2.00	3.06	4.03	5.00	6.23
	6- Row	1.58	1.79	2.00	3.06	3.94	5.00	6.23
Face Area-DX (sq ft.)		1.19	1.79	2.00	3.06	4.03	5.00	6.08
Coil Rows/FPI								
Chilled Water/2-Pipe - 4 row		4/10	4/10	4/10	4/10	4/10	4/10	4/10
Chilled Water/2-Pipe - 6 row		6/10	6/10	6/10	6/10	6/10	6/10	6/10
Std Capacity Steam	(See Note 1)	2/8	2/8	2/6	2/6	2/6	2/6	2/6
High Capacity Steam		-	-	2/14	2/14	2/14	2/14	2/14
Std Capacity DX		3/10	3/10	3/12	3/10	3/12	3/12	3/12
High Capacity DX		6/10	6/10	6/12	6/10	6/10	6/10	6/10
Max Coil Rows		12 Rows Total (note 1)						
Coil Connections (in)								
Chilled Water (OD Copper Tube)	4-Row	0.75	0.75	0.75	0.875	0.875	1.125	1.125
	6-Row					1.125		1.375
Hot Water (OD Copper Tube)		0.75	0.625	0.625	0.625	0.875	0.875	1.125
Steam-Std Cap-Supply/Return (MPT)		1.50/1.00	1.50/1.00	1.50/1.00	1.50/1.00	1.50/1.00	1.50/1.00	1.50/1.00
Steam-High Cap-Supply/Return (MPT)		-	-	1.50/1.00	1.50/1.00	1.50/1.00	1.50/1.00	1.50/1.00
Std Cap DX	Liquid (OD Sweat)	0.375	0.375	0.375	0.375	0.375	0.625	0.5
	Suction (OD Sweat)	0.625	0.625	0.75	0.75	0.75	1.125	0.875
Std Cap DX (dual ckt)	Liquid (OD Sweat) 2ea	-	-	0.375	0.375	0.375	0.375	0.5
	Suction (OD Sweat) 2ea	-	-	0.75	0.75	0.75	0.75	0.875
High Cap DX	Liquid (OD Sweat)	0.375	0.375	0.375	0.5	0.625	0.625	0.5
	Suction (OD Sweat)	0.75	0.75	0.75	0.875	0.875	1.125	0.875
High Cap DX (dual ckt)	Liquid (OD Sweat) 2ea	-	-	0.375	0.375	0.5	0.5	0.5
	Suction (OD Sweat) 2ea	-	-	0.75	0.75	0.875	0.875	1.125
Condensate Drain Line								
Primary & Auxiliary		3/4" FPT						
Coil Volume								
Hot Water - 1 row (gal)		0.1	0.2	0.2	0.3	0.5	0.6	-
Hot Water - 2 row (gal)		0.3	0.3	0.3	0.7	0.7	0.9	1.1
Chilled Water/2-Pipe - 4 row (gal)		0.5	0.6	0.6	0.8	1.1	1.4	2.2
Chilled Water/2-Pipe - 6 row (gal)		0.8	0.9	0.8	1.3	1.7	2.1	3.2
Std Capacity DX	(cu in)	68	103	115	175	231	286	348
High Capacity DX	(note 2)	136	205	229	350	461	573	697

Notes:

1. Steam coils are 1-row, 5/8" tube-in-tube steam distributing type construction. When calculating total rows of coil for the unit, these count as 2 rows.
2. For dual circuit coils, volume is half of that listed, per circuit.

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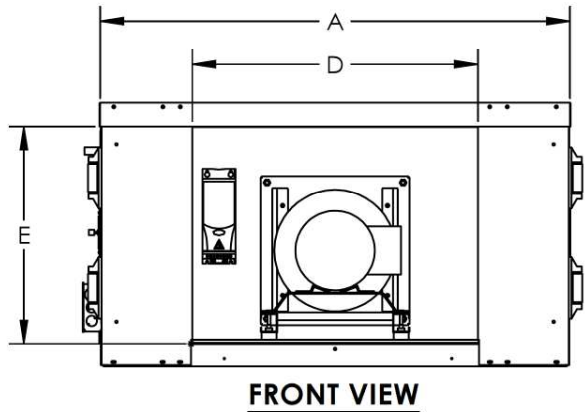
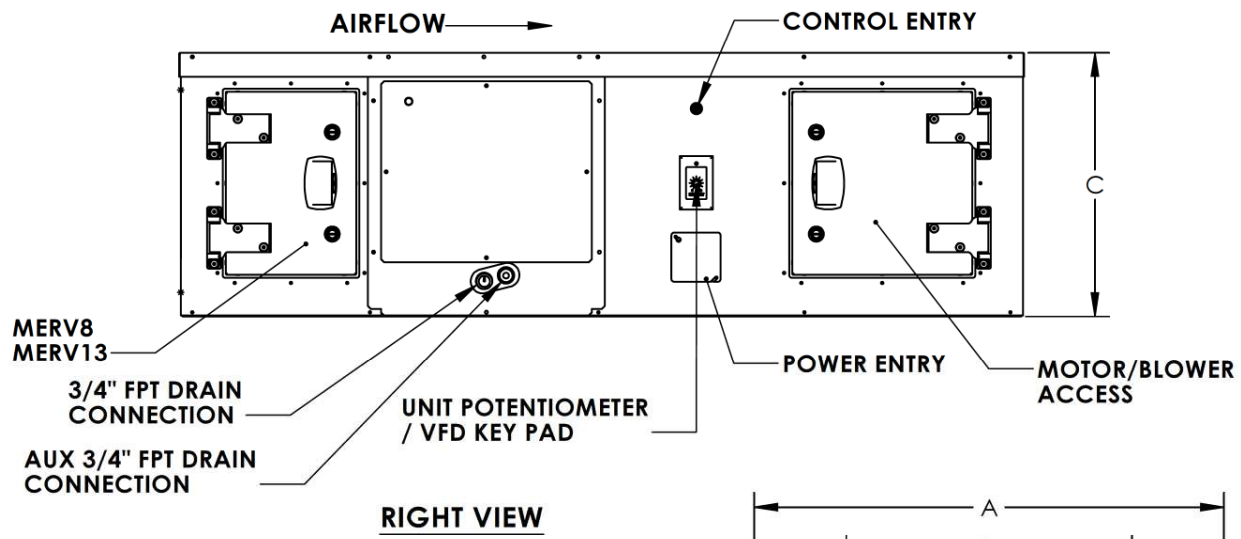
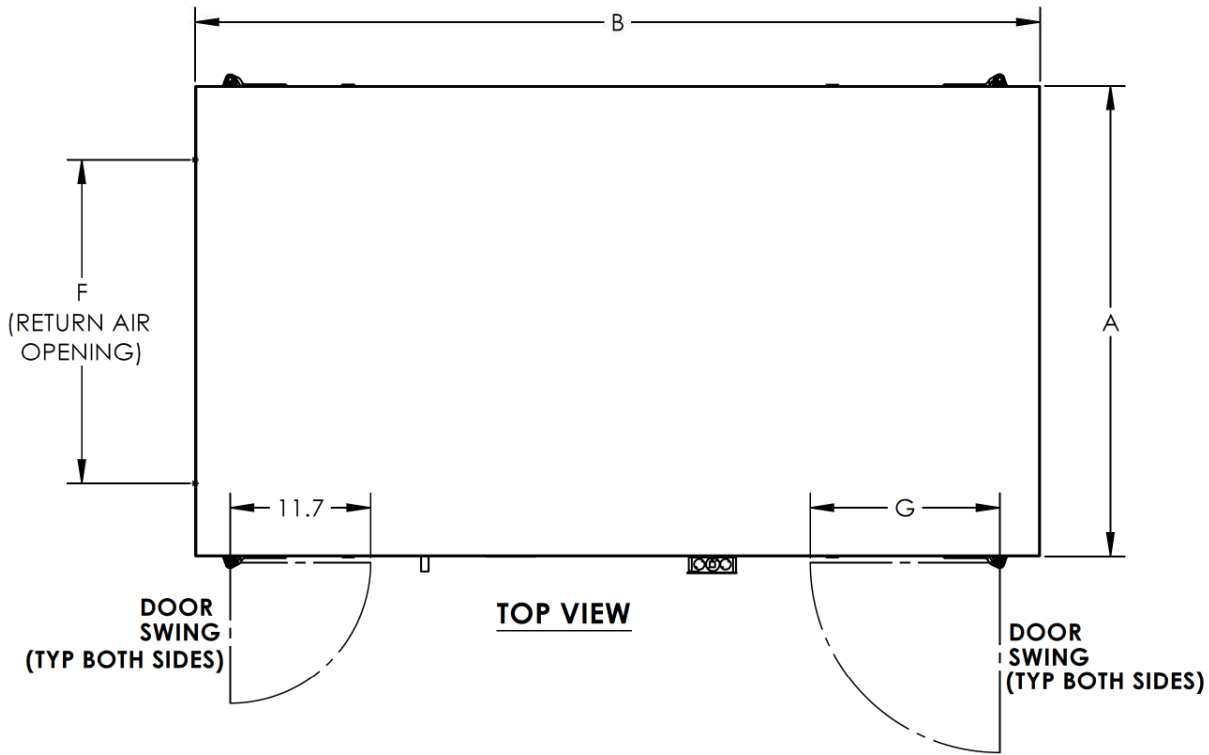
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HHA04-25 Unit Outline
RH-2" MERV 8, 4" MERV 13 PRE-FILTER ARRANGEMENT B

HH
DESIGN A



NOTES:

1. ALL DIMENSIONS ARE IN INCHES
2. UNIT POTENTIOMETER MAY BE RELOCATED BY OTHERS IN FIELD.
3. COIL CONNECTIONS SHOWN FOR REFERENCE ONLY.

	A	B	C	D	E	F	G
HHA-04/06	33.2	70.4	22	17.8	18.1	21	15.8
HHA-08/12	39.2	70.4	22	23.8	18.1	27	15.8
HHA-16/20	48.2	74.4	28	32.8	24.1	36	19.8
HHA-25	48.2	74.4	28	32.8	24.1	36	19.8

PRODUCT INFORMATION IS SUBJECT TO CHANGE WITHOUT NOTICE

JOB NAME	JOB #	BUYER	BUYER #	LOCATION	DRAWING NO. HHA-101	REV B
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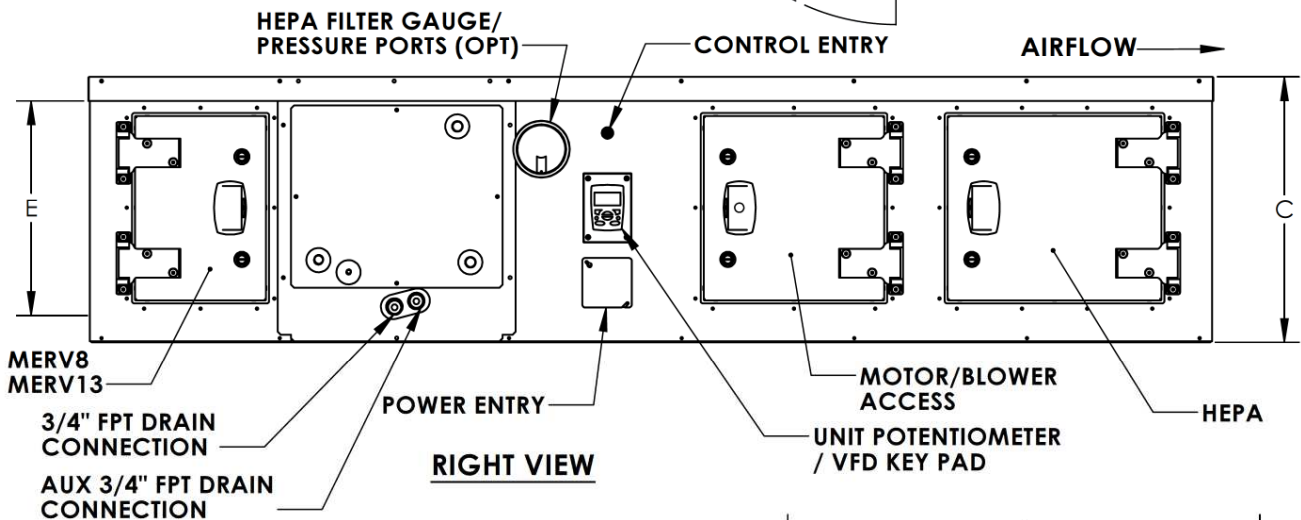
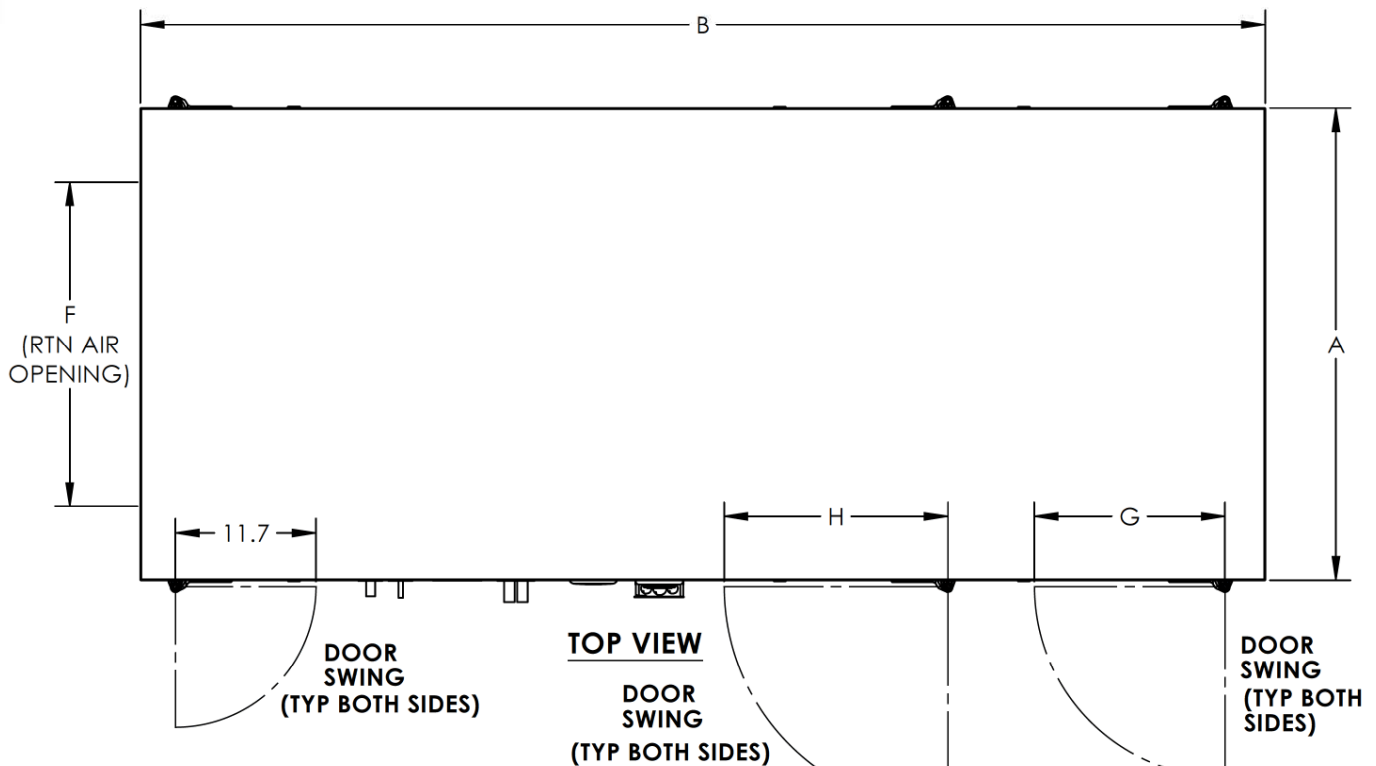
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HHA04-25 Unit Outline
RH-2" MERV 8, 4" MERV 13 / HEPA
ARRANGEMENT D

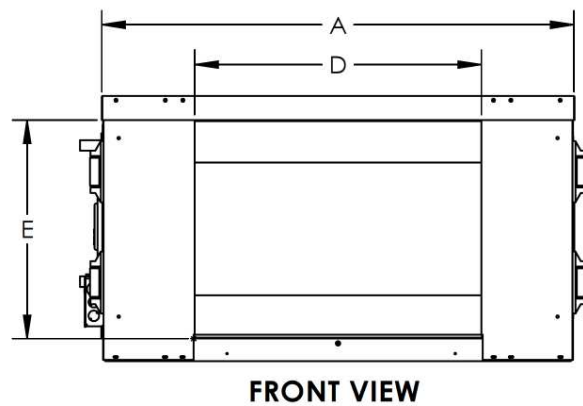
HH
DESIGN A



NOTES:

1. ALL DIMENSIONS ARE IN INCHES
2. UNIT POTENTIOMETER MAY BE RELOCATED BY OTHERS IN FIELD.
3. COIL CONNECTIONS SHOWN FOR REFERENCE ONLY.

	A	B	C	D	E	F	G	H
HHA-04/06	33.2	93.4	22	17.8	18.1	21	15.8	18.5
HHA-08/12	39.2	93.4	22	23.8	18.1	27	15.8	18.5
HHA-16/20	48.2	97.5	28	32.8	24.1	36	19.8	18.6
HHA-25	48.2	97.5	28	32.8	24.1	36	19.8	18.6



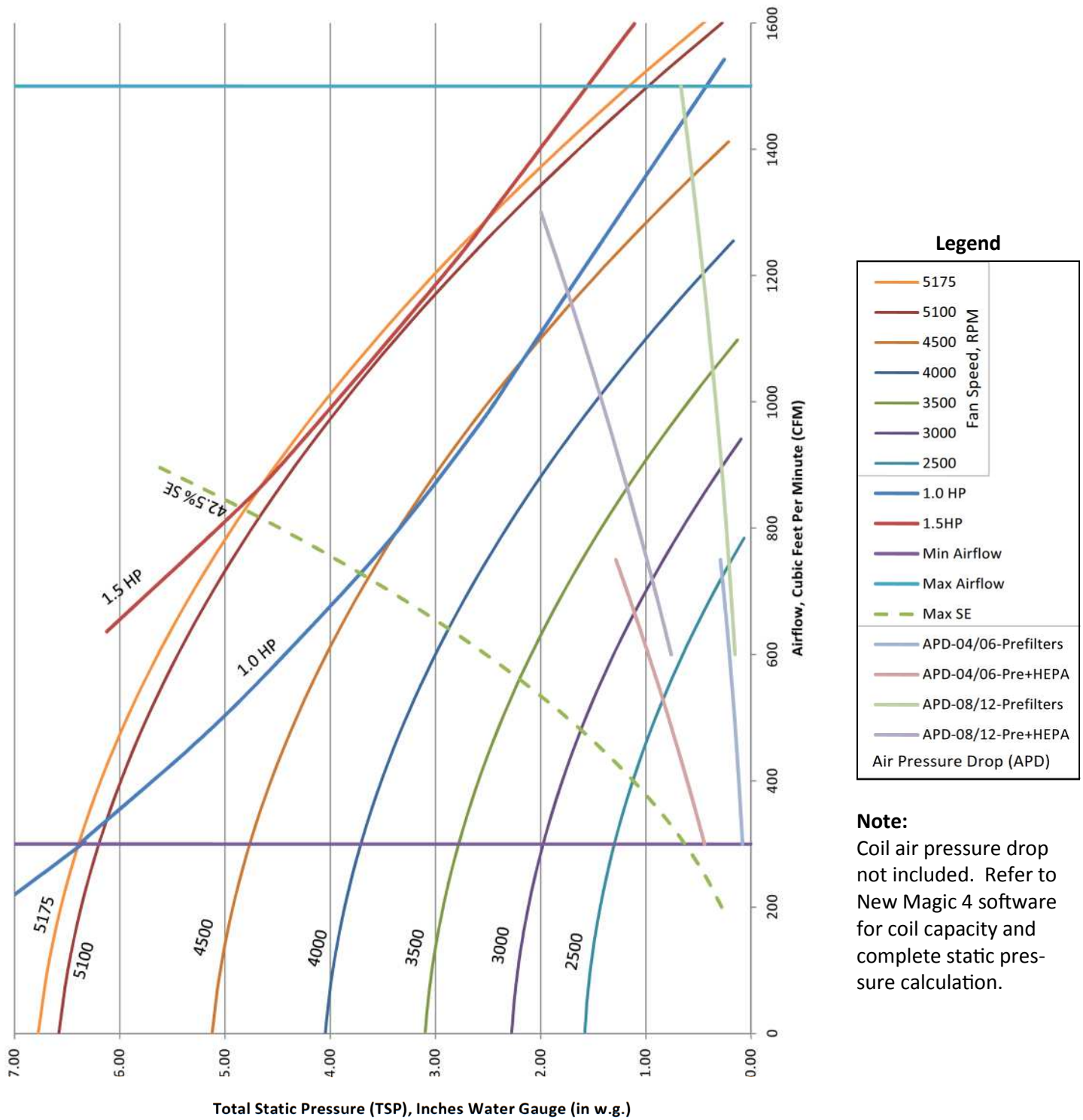
PRODUCT INFORMATION IS SUBJECT TO CHANGE WITHOUT NOTICE

JOB NAME	JOB #	BUYER	BUYER #	LOCATION	DRAWING NO. HHA-102	REV B
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Model HHA Critical Environment Fan Coil

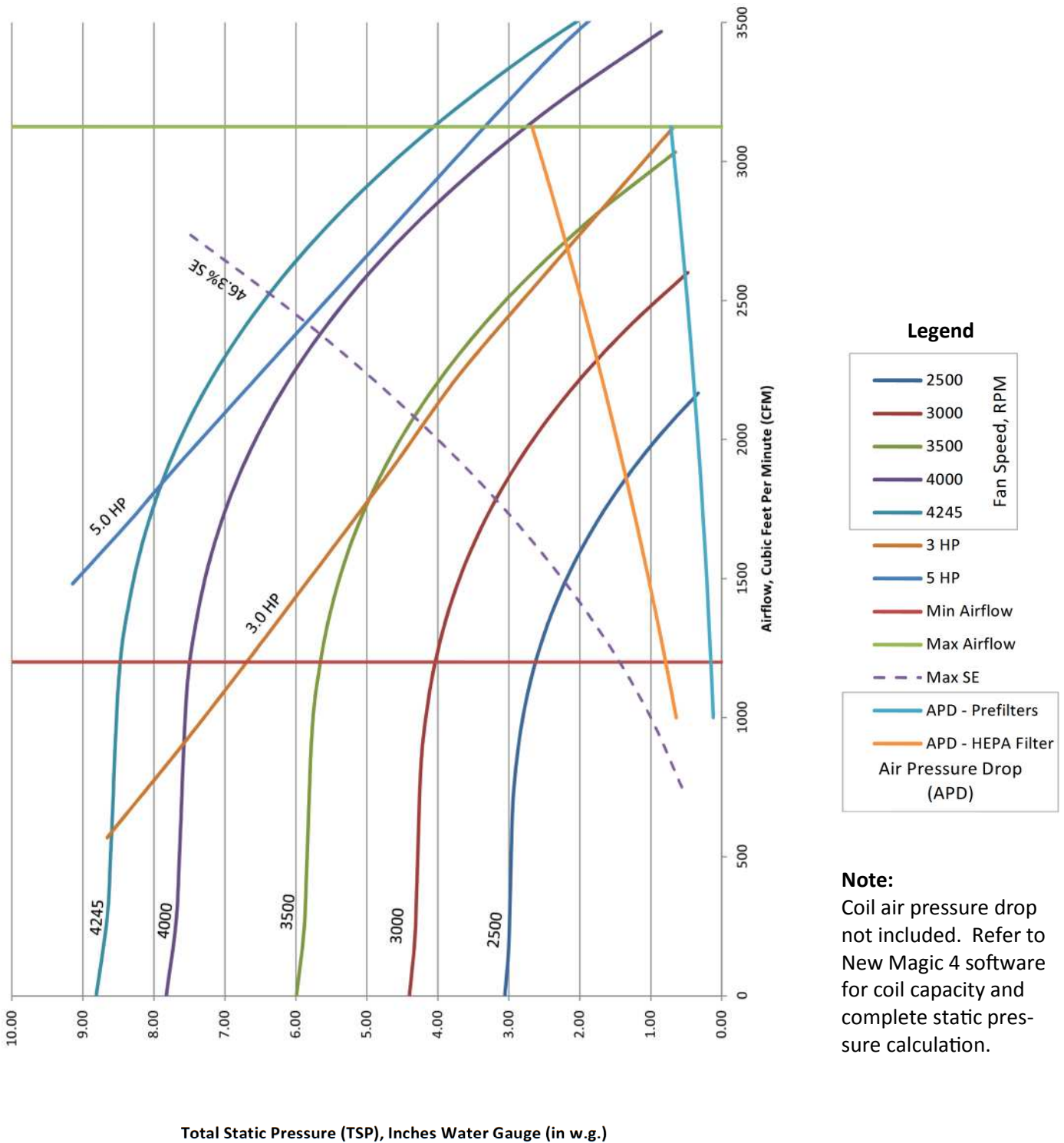
Fan Curves—Sizes 04-12





Model HHA Critical Environment Fan Coil

Fan Curves—Sizes 16-25



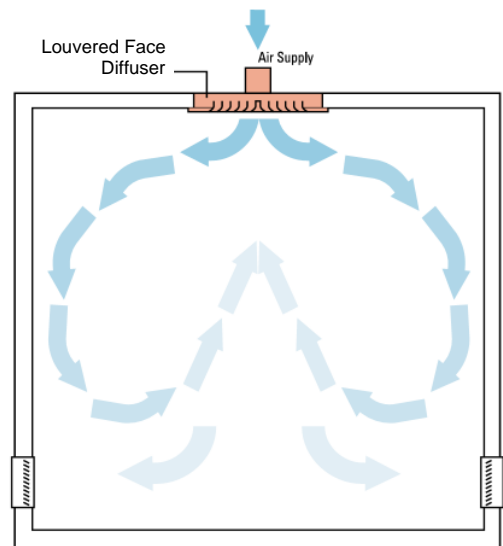
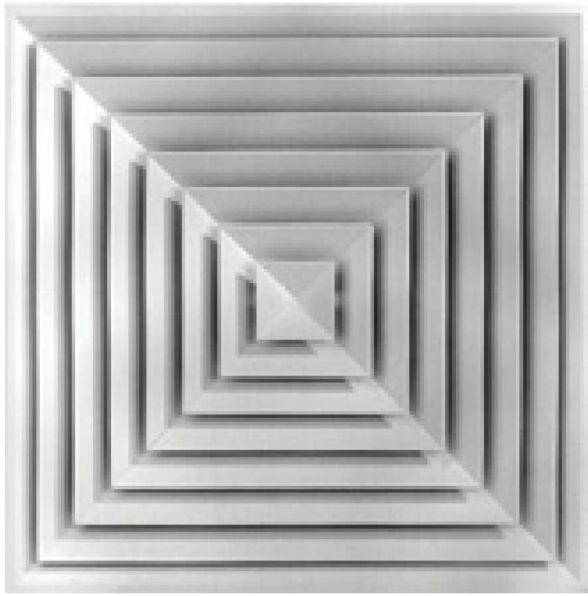
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Model HHA Critical Environment Fan Coil HEPA Diffuser Accessory

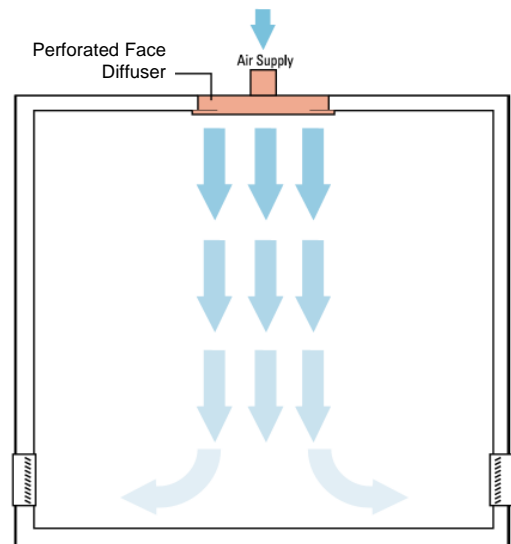
Features & Benefits

- Diffuser accessory allows filter change from the room instead of at the fan coil unit.
- Allows lower HEPA filter APD than the unit-mounted HEPA
- Louvered Face and Perforated Face versions for application flexibility
- Provided as kit with appropriate number of diffusers to match unit airflow
- Refer to New Magic 4 software for selection and APD performance (APD included with fan coil selection)

Louvered Face



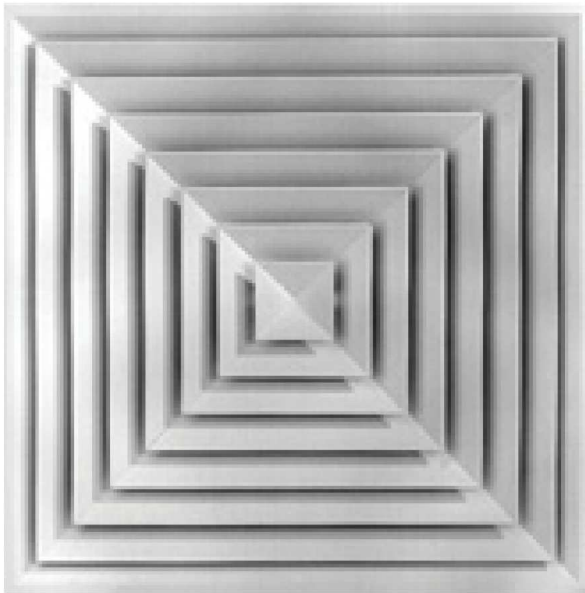
Perforated Face



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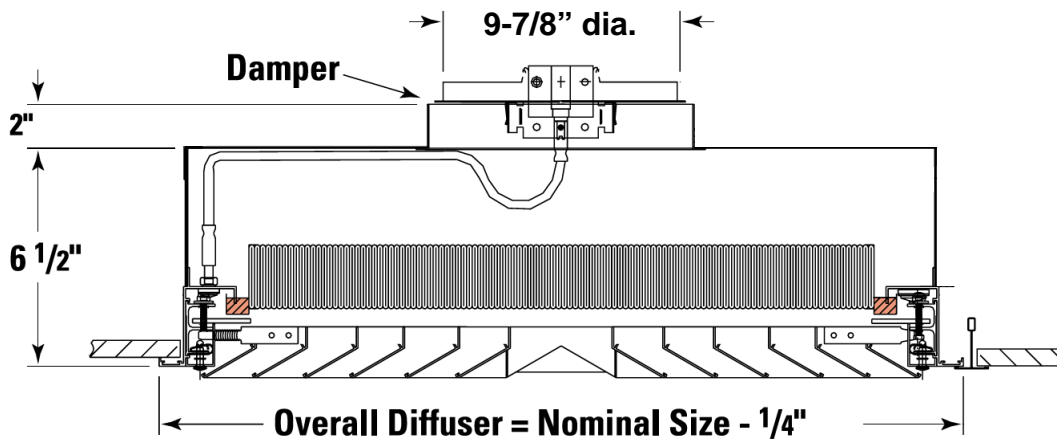
Model HHA Critical Environment Fan Coil HEPA Diffuser Accessory

Louvered Face—4-way Directional



Features:

- 24" x 24" Nominal Ceiling Module size
- HEPA 99.99% at 0.3µm efficiency
- Room side replaceable filter media—does not disturb ceiling construction
- Gel type filter seal
- 4-way directional air distribution
- Delivers high air volumes
- 2" filter depth
- 10" diameter duct connection
- Steel butterfly damper with cable operator
- Static Pressure test port
- Factory PAO (polyalphaolefin) tested



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Model HHA Critical Environment Fan Coil HEPA Diffuser Accessory

Perforated Face—Laminar Flow



Features:

- 24" x 24" and 24" x 48" Nominal Ceiling Module sizes
- HEPA 99.99% at 0.3 μ m efficiency
- Room side replaceable filter media—does not disturb ceiling construction
- Gel type filter seal
- Laminar flow diffuser—unidirectional air-flow, low velocity for best clean room performance.
- 2" filter depth
- Round duct connection
 - 10" diameter for 24" x 24"
 - 12" diameter for 24" x 48"
- Steel butterfly damper with cable operator
- Static Pressure test port
- Factory PAO (polyalphaolefin) tested

