

INDOOR AIR QUALITY

HCC

HEALTHY CLIMATE®

MERV 11, MERV 13, MERV 16 Media Air Cleaners for Furnaces and Air Handlers

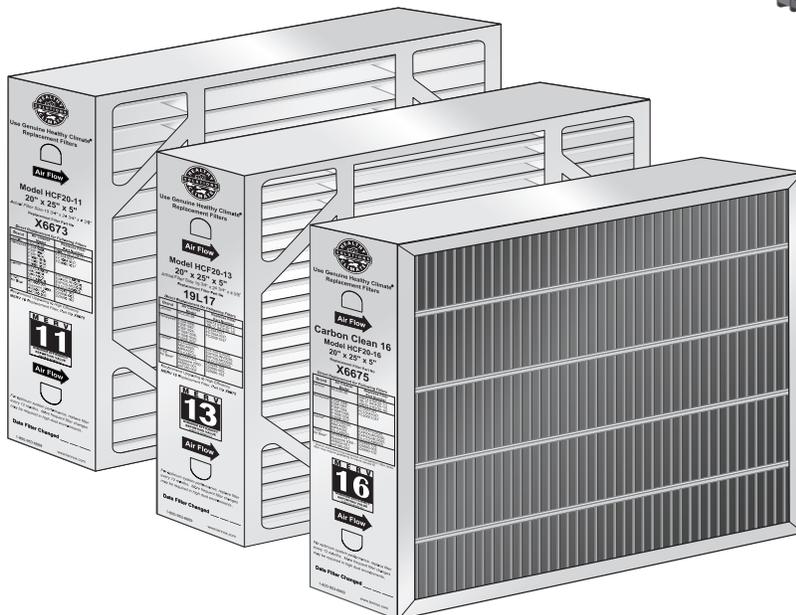
RESIDENTIAL PRODUCT SPECIFICATIONS (EHB)



HCC
Filter Cabinet
(With Filter
in Place)



HCXF MERV 11 Expandable Filter Kit
HCXF MERV 16 Expandable Filter Kit
(MERV 16 Shown)

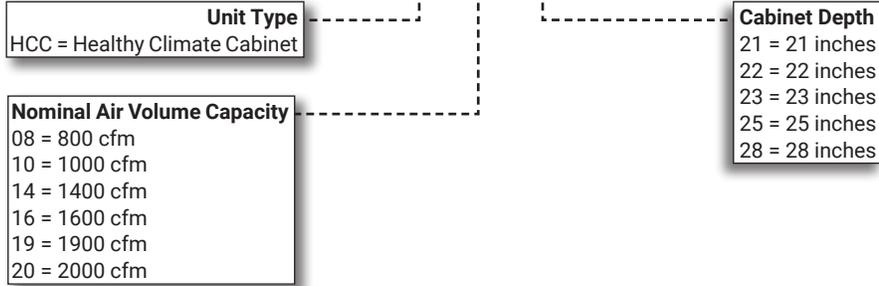


HCF MERV 11 Filter
HCF MERV 13 Filter
HCF Carbon Clean 16® (MERV 16) Filter

MODEL NUMBER IDENTIFICATION

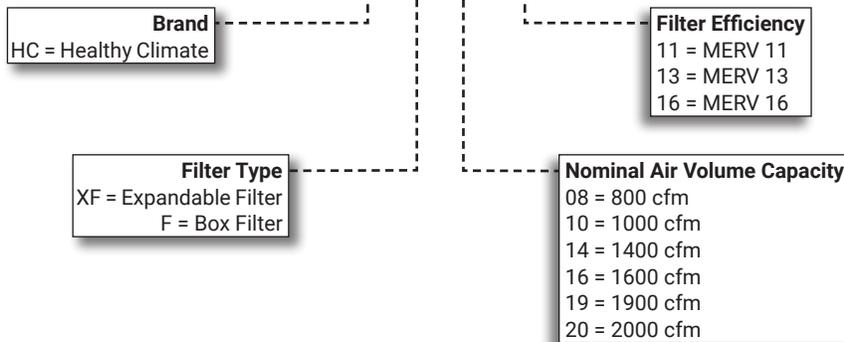
CABINET

HCC 16 - 28



FILTER

HC XF 16 - 11



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APPROVALS AND WARRANTY

APPROVALS

- Filters - Minimum Efficiency Reporting Value based on ASHRAE 52.2
- All filters are certified to UL 900 standard for flammability only and Class 2 in accordance with ULC S111

WARRANTY

- HCC cabinet and HCXF reusable filter box
 - Limited five year limited warranty in residential applications
 - Limited one year in non-residential applications

NOTE - Filter media is not covered.

NOTE - Refer to Healthy Climate Equipment Limited Warranty certificate included with cabinet for specific details.

FEATURES

APPLICATIONS

NOTE - Cabinet and Filter must be ordered separately.

- High performance filtration with a narrow 7 in. cabinet
- Pleated filter design allows maximum air flow and filtration efficiency
- Multi-position cabinet is available for installation on the return air opening of warm air furnaces and air handlers
- Cooling applications up to 5 tons
- Unit can be installed in upflow, downflow or horizontal unit applications
- Silent operation
- Requires no electrical component service
- Generates no ozone
- Constant blower operation will achieve the best air cleaning results
- No duct transition needed for most furnace applications
- See Match-Up Table for additional details on page 9

INSTALLATION CONSIDERATIONS

- A 25 in. clearance in front of the air cleaner is required to allow removal of filter media
- Due to the flue location on downflow furnaces, the front of the air cleaner must be installed to the side or rear of the furnace cabinet for filter access
- If installed in a confined space, service clearance may be restricted
- If an atomizing spray type humidifier is also used, it must be installed downstream from the air cleaner
- If a UV germicidal light is used in the system, maintain a minimum distance of 6 ft. from the air cleaner if they are in direct line of sight to one another
- Maintain a minimum of 3 ft. if using a 90° bend or turn in the duct

CABINET

- Constructed of pre-painted cold rolled steel
- Will withstand 400 lbs. static weight, enough to support the weight of a typical furnace and indoor coil or air handler
- Tool-less access door allows quick and easy replacement of filter media
- Mounts in any position
- Air flow direction through the cabinet can be changed by re-positioning the filter
- Arrows on filter indicate air flow direction
- Shipped compact and requires minimum field assembly
- Cabinet panels snap together
- No tools required

FILTER MEDIA

Carbon Clean 16® (MERV 16) Box Filters

- 50% first-pass reduction of ozone
- Carbon coated fiber matrix reduces odors
- Hospital inpatient care/general surgery level filtration
- Removes 99% of airborne dust, dirt and pollen and filters more than 95% of airborne breathable particles
- Removes over 90% of ultra-fine particles down to 0.01 micron, including viruses and bacteria
- Double-wall beverage board frame for rigid construction
- Disposable
- Pleated

MERV 13 Box Filters

- Removes 90% of airborne dust, dirt and pollen and filters more than 85% of airborne breathable particles
- Double-wall beverage board frame for rigid construction
- Disposable
- Pleated

MERV 11 Box Filters

- Removes 85% of airborne dust, dirt, pollen and other contaminants
- Double-wall beverage board frame for rigid construction
- Disposable
- Pleated

Expandable Filter Kits (MERV 16 and MERV 11)

- Same features as MERV 16 and MERV 11 filters above
- All kits consist of an expandable filter media and reusable filter box frame
- Double-wall beverage board filter flaps on filter media and rigid reusable top, bottom and side frame pieces for rigid construction
- Filter kit is shipped compact for field assembly
- Top, bottom and side frame pieces snap together with filter media inside
- No tools required
- MERV 16 kits include reusable filter spacers

SPECIFICATIONS - FURNACES MODELS
MERV 11

Cabinet Model		HCC16-28	HCC20-28	
Filter Model (Box Filter)		HCF16-11	HCF20-11	
Filter Model (Expandable Filter Kit)		HCXF16-11	HCXF20-11	
¹ MERV (Minimum Efficiency Reporting Value) rating		11	11	
Air Flow	Air flow range - cfm	800 - 1600	1400 - 2000	
	Rated air flow - cfm	1600	2000	
Filter Data	Nominal Filter size - in.	16 x 25 x 5	20 x 25 x 5	
	Actual Filter size - in.	15-3/4 x 24-3/4 x 4-3/8	19-3/4 x 24-3/4 x 4-3/8	
	Pressure drop @ rated flow - in. w.c.	Box filter - Initial	0.27	0.27
		- Final	0.40	0.40
	Expandable filter - Initial		0.30	0.27
		- Final	0.40	0.40
² Filter estimated service life (months)		Up to 12 months		
Shipping weight - lbs.	Cabinet	17	18	

MAINTENANCE SUPPLIES - ORDER SEPARATELY

Replacement Box Filter	X6670	X6673
Replacement Expandable Filter (frame and media)	X8303	X8304
Replacement Expandable Filter (media only)	X8309	X8310

¹ Rated at 492 feet per minute

² Different factors will influence the frequency of replacement of filter media, such as: the number of people in the home, activities, lifestyle, number of pets, and size of home.

SPECIFICATIONS - FURNACE MODELS
MERV 13

Cabinet Model		HCC16-28	HCC20-28	
Filter Model (Box Filter)		HCF16-13	HCF20-13	
¹ MERV (Minimum Efficiency Reporting Value) rating		13	13	
Air Flow	Air flow range - cfm	800 - 1600	1400 - 2000	
	Rated air flow - cfm	1600	2000	
Filter Data	Nominal Filter size - in.	16 x 25 x 5	20 x 25 x 5	
	Actual Filter size - in.	15-3/4 x 24-3/4 x 4-3/8	19-3/4 x 24-3/4 x 4-3/8	
	Pressure drop @ rated flow - in. w.c.	Box filter - Initial	0.26	0.26
		- Final	0.40	0.40
	Expandable filter - Initial			
		- Final		
² Filter estimated service life (months)		Up to 12 months		
Shipping weight - lbs.	Cabinet	17	18	

MAINTENANCE SUPPLIES - ORDER SEPARATELY

Replacement Box Filter	19L16	19L17
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¹ Rated at 492 feet per minute

² Different factors will influence the frequency of replacement of filter media, such as: the number of people in the home, activities, lifestyle, number of pets, and size of home.

SPECIFICATIONS - FURNACE MODELS MERV 16

Cabinet Model		HCC16-28	HCC20-28	
Filter Model (Box Filter)		HCF16-16	HCF20-16	
Filter Model (Expandable Filter Kit)		HCXF16-16	HCXF20-16	
¹ MERV (Minimum Efficiency Reporting Value) rating		16	16	
Air Flow	Air flow range - cfm	800 - 1600	1400 - 2000	
	Rated air flow - cfm	1600	2000	
Filter Data	Nominal Filter size - in.	16 x 25 x 5	20 x 25 x 5	
	Actual Filter size - in.	15-3/4 x 24-3/4 x 4-3/8	19-3/4 x 24-3/4 x 4-3/8	
	Pressure drop @ rated flow - in. w.c.	Box filter - Initial	0.31	0.31
		- Final	0.40	0.40
	Expandable filter - Initial	- Final	0.31	0.31
		- Final	0.40	0.40
² Filter estimated service life (months)		Up to 12 months		
Shipping weight - lbs.	Cabinet	17	18	

MAINTENANCE SUPPLIES - ORDER SEPARATELY

Replacement Box Filter	X6672	X6675
Replacement Expandable Filter (frame and media)	X8306	X8307
Replacement Expandable Filter (media only)	X8312	X8313

¹ Rated at 492 feet per minute
² Different factors will influence the frequency of replacement of filter media, such as: the number of people in the home, activities, lifestyle, number of pets, and size of home.

SPECIFICATIONS - AIR HANDLER MODELS MERV 11

Cabinet Model		HCC08-21	HCC10-22	HCC14-23	HCC19-22	HCC19-25	
Filter Model (Box Filter)		HCF14-11	HCF10-11	HCF14-11	HCF19-11	HCF19-11	
Filter Model (Expandable Filter Kit)		HCXF14-11	N/A	HCXF14-11	N/A	N/A	
¹ MERV (Minimum Efficiency Reporting Value) rating		11	11	11	11	11	
Air Flow	Air flow range - cfm	800 - 1400	800 - 1000	800 - 1400	800 - 1850	800 - 1850	
	Rated air flow - cfm	800	1000	1400	1850	1850	
Filter Data	Nominal Filter size - in.	20 x 20 x 5	17 x 21 x 5	20 x 20 x 5	20 x 22 x 5	20 x 22 x 5	
	Actual Filter size - in.	20 x 19-3/4 x 4-3/8	16-15/16 x 20 5/8 x 4-3/8	20 x 19-3/4 x 4-3/8	19-15/16 x 21-5/8 x 4-3/8	19-15/16 x 21-5/8 x 4-3/8	
	Pressure drop @ rated flow - in. w.c.	Box filter - Initial	0.19	0.12	0.25	0.23	0.23
		- Final	0.40	0.40	0.40	0.40	0.40
	Expandable filter - Initial	- Final	0.27	N/A	0.27	N/A	N/A
		- Final	0.40	N/A	0.40	N/A	N/A
² Filter estimated service life (months)		Up to 12 months					
Shipping weight - lbs.	Cabinet	13	14	15	15	15	

MAINTENANCE SUPPLIES - ORDER SEPARATELY

Replacement Box Filter	X0585	25Z85	X0585	26Z89	26Z89
Replacement Expandable Filter (frame and media)	X8305	N/A	X8305	N/A	N/A
Replacement Expandable Filter (media only)	X8311	N/A	X8311	N/A	N/A

¹ Rated at 492 feet per minute
² Different factors will influence the frequency of replacement of filter media, such as: the number of people in the home, activities, lifestyle, number of pets, and size of home.

SPECIFICATIONS - AIR HANDLER MODELS
MERV 13

Cabinet Model			HCC14-23
Filter Model (Box Filter)			HCF14-13
¹ MERV (Minimum Efficiency Reporting Value) rating			13
Air Flow	Air flow range - cfm	800 - 1400	
	Rated air flow - cfm	1400	
Filter Data	Nominal Filter size - in.	20 x 20 x 5	
	Actual Filter size - in.	20 x 19-3/4 x 4-3/8	
Pressure drop @ rated flow - in. w.c.	Box filter - Initial	0.21	
	- Final	0.40	
² Filter estimated service life (months)		Up to 12 months	
Shipping weight - lbs.	Cabinet	15	

MAINTENANCE SUPPLIES - ORDER SEPARATELY

Replacement Box Filter	19L14
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¹ Rated at 492 feet per minute

² Different factors will influence the frequency of replacement of filter media, such as: the number of people in the home, activities, lifestyle, number of pets, and size of home.

SPECIFICATIONS - AIR HANDLER MODELS
MERV 16

Cabinet Model		HCC08-21	HCC10-22	HCC14-23	HCC19-22	HCC19-25
Filter Model (Box Filter)		HCF14-16	HCF10-16	HCF14-16	HCF19-16	HCF19-16
Filter Model (Expandable Filter Kit)		HCXF14-16	N/A	HCXF14-16	N/A	N/A
¹ MERV (Minimum Efficiency Reporting Value) rating		16	16	16	16	16
Air Flow	Air flow range - cfm	800 - 1400	800 - 1000	800 - 1400	800 - 1900	800 - 1900
	Rated air flow - cfm	800	1000	1400	1850	1850
Filter Data	Nominal Filter size - in.	20 x 20 x 5	17 x 21 x 5	20 x 20 x 5	20 x 22 x 5	20 x 22 x 5
	Actual Filter size - in.	20 x 19-3/4 x 4-3/8	16-15/16 x 20 5/8 x 4-3/8	20 x 19-3/4 x 4-3/8	19-15/16 x 21-5/8 x 4-3/8	19-15/16 x 21-5/8 x 4-3/8
Pressure drop @ rated flow - in. w.c.	Box filter - Initial	0.19	0.19	0.29	0.32	0.32
	- Final	0.40	0.40	0.40	0.40	0.40
Expandable filter - Initial	- Final	0.27	N/A	0.29	N/A	N/A
	- Final	0.40	N/A	0.40	N/A	N/A
² Filter estimated service life (months)		Up to 12 months				
Shipping weight - lbs.	Cabinet	13	14	15	15	15

MAINTENANCE SUPPLIES - ORDER SEPARATELY

Replacement Box Filter	X7935	26Z88	X7935	26Z91	26Z91
Replacement Expandable Filter (frame and media)	X8308	N/A	X8308	N/A	N/A
Replacement Expandable Filter (media only)	X8314	N/A	X8314	N/A	N/A

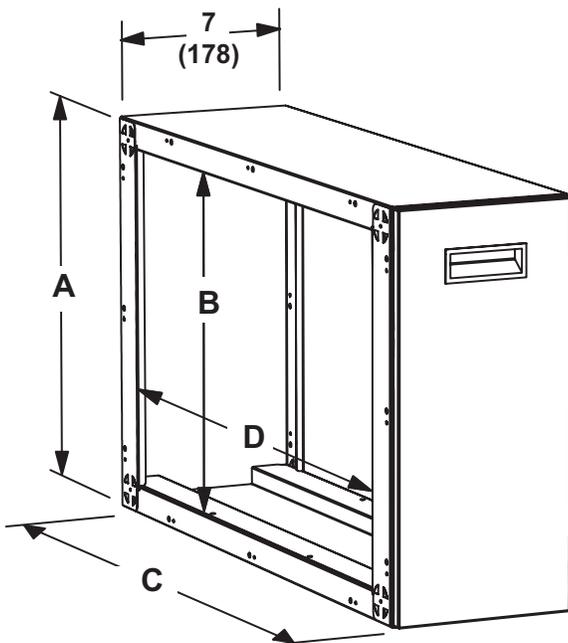
¹ Rated at 492 feet per minute

² Different factors will influence the frequency of replacement of filter media, such as: the number of people in the home, activities, lifestyle, number of pets, and size of home.

CABINET AND FILTER COMBINATIONS

MERV Rating	Cabinet Model	Cabinet Depth (front to back)		Filter Model	Filter Type	Cfm
		in.	mm			
FURNACE MODELS						
11	HCC16-28	28	711	HCF16-11	Box	1600
11	HCC16-28	28	711	HCXF16-11	Expandable	1600
11	HCC20-28	28	711	HCF20-11	Box	2000
11	HCC20-28	28	711	HCXF20-11	Expandable	2000
13	HCC16-28	28	711	HCF16-13	Box	1600
13	HCC20-28	28	711	HCF20-13	Box	2000
16	HCC16-28	28	711	HCF16-16	Box	1600
16	HCC16-28	28	711	HCXF16-16	Expandable	1600
16	HCC20-28	28	711	HCF20-16	Box	2000
16	HCC20-28	28 <td 711	HCXF20-16	Expandable	2000	
AIR HANDLER MODELS						
11	HCC08-21	21	524	HCF14-11	Box	800
11	HCC08-21	21	524	HCXF14-11	Expandable	800
11	HCC10-22	22	559	HCF10-11	Box	1000
11	HCC14-23	23	584	HCF14-11	Box	1400
11	HCC14-23	23	584	HCXF14-11	Expandable	1400
11	HCC19-22	22	559	HCF19-11	Box	1900
11	HCC19-25	25	625	HCF19-11	Box	1900
13	HCC14-23	23	584	HCF14-13	Box	1400
16	HCC08-21	21	524	HCF14-16	Box	800
16	HCC08-21	21	524	HCXF14-16	Expandable	800
16	HCC10-22	22	559	HCF10-16	Box	1000
16	HCC14-23	23	584	HCF14-16	Box	1400
16	HCC14-23	23	584	HCXF14-16	Expandable	1400
16	HCC19-22	22	559	HCF19-16	Box	1900
16	HCC19-25	25	625	HCF19-16	Box	1900

DIMENSIONS - FILTER CABINET



FURNACE MODELS

Cabinet Model	A		B		C		D	
	in.	mm	in.	mm	in.	mm	in.	mm
HCC16-28	17-1/4	438	14-3/4	375	28-1/2	724	24	610
HCC20-28	21	533	18-1/2	470	28-1/2	724	24	610

AIR HANDLER MODELS

Cabinet Model	A		B		C		D	
	in.	mm	in.	mm	in.	mm	in.	mm
HCC14-23	21-1/4	540	18-3/4	476	23	584	18-1/2	470
HCC08-21	21-1/4	540	18-3/4	476	21-1/8	537	17	432
HCC10-22	18-1/2	470	16	406	22-5/8	575	18-3/8	467
HCC19-22	21-1/2	546	19	483	22-3/4	578	18-1/2	470
HCC19-25	21-1/4	540	18-3/4	476	25-1/8	638	20-7/8	530

FILTER AIR RESISTANCE
HCF BOX FILTER

Air Flow (cfm)	Pressure drop (in. w.c.)							
	HCF10-11	HCF10-16	HCF14-11	¹ HCF14-13	HCF14-16	HCF16-11	¹ HCF16-13	HCF16-16
800	0.08	0.14	0.07	0.10	0.12	0.07	0.11	0.13
1000	0.12	0.19	0.10	0.14	0.16	0.10	0.14	0.17
1200	---	---	0.13	0.19	0.21	0.14	0.19	0.21
1400	---	---	0.17	0.23	0.25	0.17	0.24	0.26
1600	---	---	---	---	---	0.22	0.30	0.31
1800	---	---	---	---	---	---	---	---
2000	---	---	---	---	---	---	---	---

¹ Calculated values based on HCF20-13 ASHRAE Standard 52.2-2017 performance.

FILTER AIR RESISTANCE
HCF BOX FILTER

Air Flow (cfm)	Pressure drop (in. w.c.)				
	HCF19-11	HCF19-16	HCF20-11	HCF20-13	HCF20-16
800	0.06	0.11	0.05	0.08	0.09
1000	0.09	0.15	0.07	0.11	0.13
1200	0.12	0.19	0.10	0.14	0.16
1400	0.16	0.23	0.12	0.17	0.19
1600	0.19	0.27	0.15	0.21	0.23
1800	0.23	0.31	0.18	0.25	0.27
2000	---	---	0.21	0.30	0.31

¹ Calculated values based on HCF20-13 ASHRAE Standard 52.2-2017 performance.

FILTER AIR RESISTANCE
HCXF EXPANDABLE FILTER

Air Flow (cfm)	Pressure drop (in. w.c.)					
	HCXF14-11	HCXF14-16	HCXF16-11	HCXF16-16	HCXF20-11	HCXF20-16
800	0.11	0.14	0.12	0.12	0.06	0.09
1000	0.15	0.18	0.19	0.16	0.09	0.12
1200	0.20	0.24	0.22	0.21	0.12	0.15
1400	0.27	0.29	0.26	0.25	0.15	0.19
1600	---	---	0.30	0.31	0.18	0.23
1800	---	---	---	---	0.22	0.27
2000	---	---	---	---	0.27	0.31

MINIMUM FILTER EFFICIENCY

Filter Model No.	MERV Rating	Filter Efficiency (percentage)		
		E1 (0.3 to 1.0 microns)	E2 (1.0 to 3.0 microns)	E3 (3.0 to 10.0 microns)
HCF10-11 HCF14-11 / HCXF14-11 HCF16-11 / HCXF16-11 HCF19-11 HCF20-11 / HCXF20-11	¹ 11	28%	65%	87%
HCF14-13 HCF16-13 HCF20-13	² 13	54%	86%	99%
HCF10-16 HCF14-16 / HCXF14-16 HCF16-16 / HCXF16-16 HCF19-16 HCF20-16 / HCXF20-16	¹ 16	95%	99%	100%

¹ Values are based on lab tests conducted with conditions included in ASHRAE Standard 52.2 2012.

² Values are based on lab tests conducted with conditions included in ASHRAE Standard 52.2 2017.

MATCH-UPS - FILTER CABINET WITH FURNACE

ALSO SEE ILLUSTRATIONS ON NEXT PAGE FOR ADDITIONAL DETAILS

Furnaces	Filter Cabinet		Comment
	HCC16-28	HCC20-28	
"A" Width Furnace with Side Return Air	•		No duct transition required.
"A" Width Furnace with Bottom Return Air	•		28-1/2 x 3 in. side seal strip or duct transition needed.
"B" Width Furnace with Side Return Air	•		No duct transition required.
"B" Width Furnace with Bottom Return Air	•		No duct transition required.
"C" Width Furnace with Side Return Air (up to 4 ton)	•	•	No duct transition required, for high system static application use HCC20-28.
"C" Width Furnace with Side Return Air (5 ton)		•	Option 1 - No duct transition required, use Return Air Base (98M58). Option 2 - Over-cut top edge of side return opening by 1 in. to make opening 15 x 23 in. (H x W).
"C" Width Furnace with Bottom Return Air		•	No duct transition required.
"D" Width Furnace with Side Return Air		•	Option 1 - No duct transition required, use Return Air Base (98M59). Option 2 - Over-cut top edge of side return opening by 1 in. to make opening 15 x 23 in. (H x W).
"D" Width Furnace with Bottom Return Air		•	28-1/2 x 3 1/2 in. side seal strip or duct transition needed.

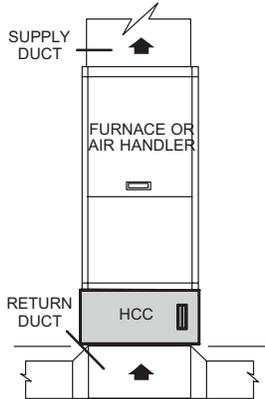
MATCH-UPS - FILTER CABINET WITH AIR HANDLER

ALSO SEE ILLUSTRATIONS ON NEXT PAGE FOR ADDITIONAL DETAILS

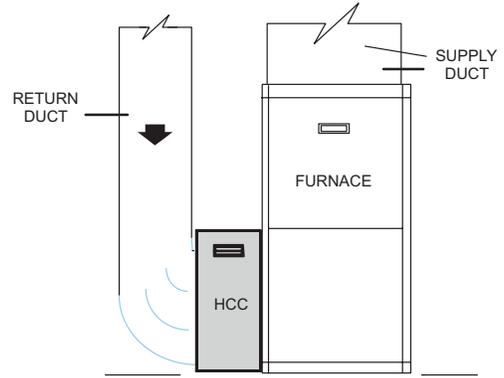
Air Handlers	Filter Cabinet					Comment
	HCC08-21	HCC10-22	HCC14-23	HCC19-22	HCC19-25	
Air Handler (W x D) - 18-1/2 x 22 in. CBK43UHET-018-024-030-036 CBK45UH(E/P/V)T-018-024-030		•				No duct transition required.
Air Handler (W x D) - 21-1/2 x 22 in. CBK43UHEY-042-048-060 CBK45UH(E/P/V)T-036-042-048-060				•		No duct transition required.
Air Handler (W x D) - 21-1/4 x 20-5/8 in. CBK47UHET-018 CBK47UHET-024 CBK48MVT-018/024	•					No duct transition required.
Air Handler (W x D) - 21-1/4 x 22-5/8 in. CBK47UHET-030 CBK47UHET-036 CBK48MVT-030-036			•			No duct transition required.
Air Handler (W x D) - 21-1/4 x 24-5/8 in. CBK47UHET-042 CBK47UHET-048 CBK47UHET-060 CBK48MVT-042-048-060					•	No duct transition required.

MATCH-UPS - FILTER CABINET WITH FURNACE / AIR HANDLER

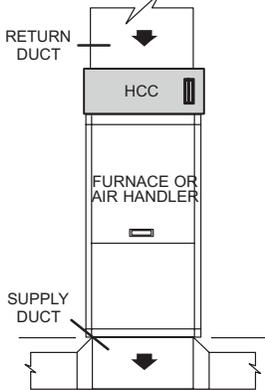
**UPFLOW FURNACE/AIR HANDLER
(Bottom Return Air)**



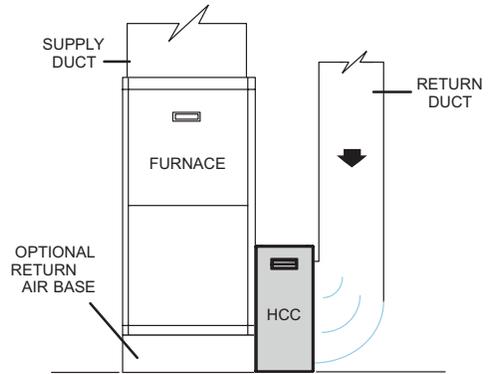
**UPFLOW FURNACE
(Side Return Air - up to 4 ton)**



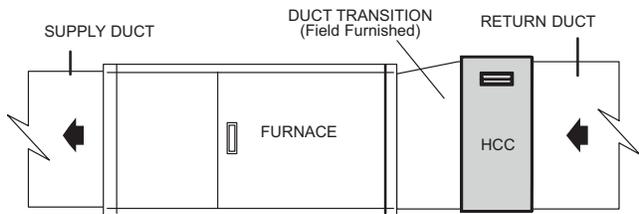
**DOWNFLOW FURNACE/AIR HANDLER
(Top Return Air)**



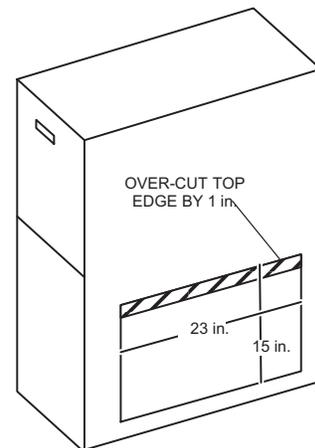
**UPFLOW FURNACE
(Option 1 - Side Return Air - 5 ton)
(With Optional Return Air Base)**



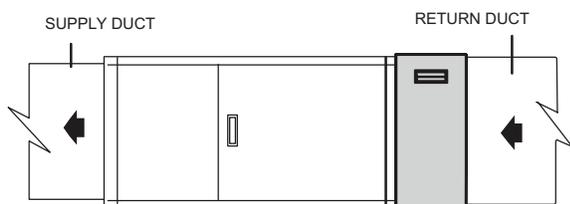
HORIZONTAL FURNACE



**UPFLOW FURNACE
(Option 2 - Side Return Air - 5 ton)
(Modified Return Air Opening)**



HORIZONTAL AIR HANDLER



REVISIONS

Sections	Description of Change
Match-Ups	Updated to reflect new Air Handler models.



Air Filter Unit
As to flammability only
838H R5277
Class 2 in accordance with ULC S111

Visit us at www.Lennox.com
For the latest technical information, www.LennoxPros.com
Contact us at 1-800-4-LENNOX

NOTE - Due to Lennox' ongoing commitment to quality, Specifications, Ratings and Dimensions subject to change without notice and without incurring liability. Improper installation, adjustment, alteration, service or maintenance can cause property damage or personal injury. Installation and service must be performed by a qualified installer and servicing agency.

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