

## INDOOR AIR QUALITY

# HCC

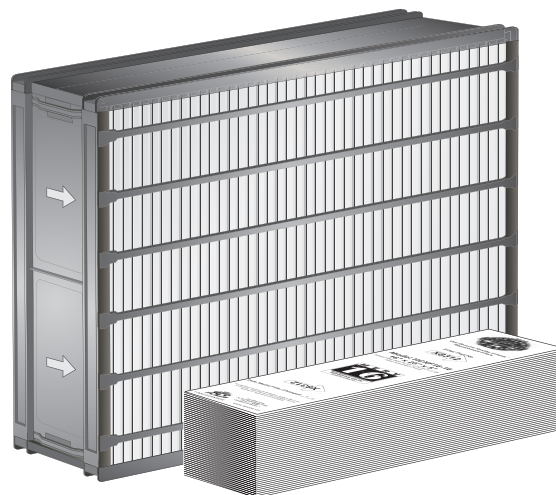
HEALTHY CLIMATE®

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

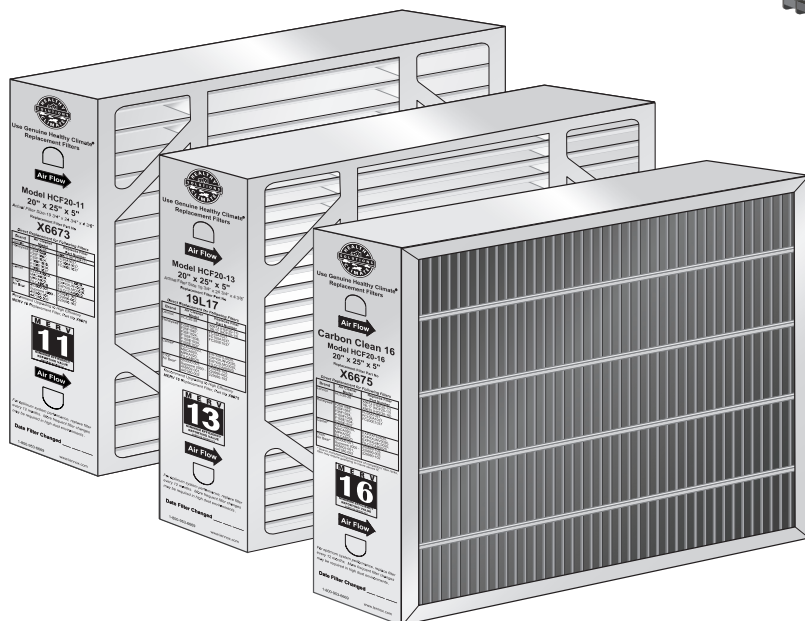
### RESIDENTIAL PRODUCT SPECIFICATIONS (EHB)



HCC  
Filter Cabinet  
(With Filter  
in Place)



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

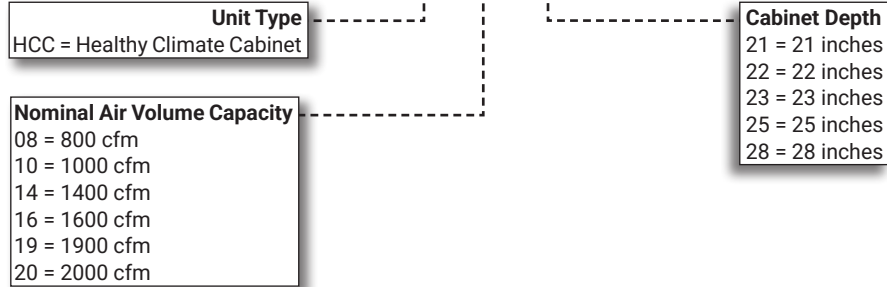


HCF MERV 11 Filter  
HCF MERV 13 Filter  
HCF Carbon Clean 16® (MERV 16) Filter

## MODEL NUMBER IDENTIFICATION

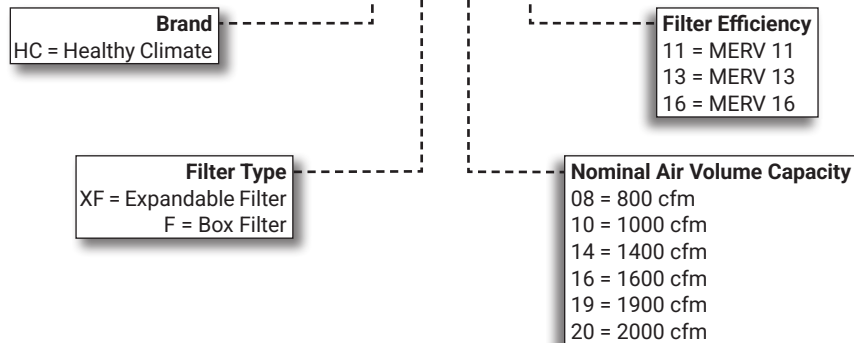
### CABINET

**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               |      |
| <sup>1</sup> 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                    |      |
|                                                               |                                                     | - Final                 | 0.40                    |      |
|                                                               | Expandable filter - Initial                         | 0.30                    | 0.27                    |      |
|                                                               |                                                     | - Final                 | 0.40                    | 0.40 |
|                                                               | <sup>2</sup> Filter estimated service life (months) |                         | Up to 12 months         |      |
|                                                               | Shipping weight - lbs.                              | Cabinet                 | 17                      | 18   |

## MAINTENANCE SUPPLIES - ORDER SEPARATELY

|                                                 |              |              |
|-------------------------------------------------|--------------|--------------|
| Replacement Box Filter                          | <b>X6670</b> | <b>X6673</b> |
| Replacement Expandable Filter (frame and media) | <b>X8303</b> | <b>X8304</b> |
| Replacement Expandable Filter (media only)      | <b>X8309</b> | <b>X8310</b> |

<sup>1</sup> Rated at 492 feet per minute

<sup>2</sup> 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                |
| <sup>1</sup> 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                    |
|                                                               |                                                     | - Final                 | 0.40                    |
|                                                               | <sup>2</sup> Filter estimated service life (months) |                         | Up to 12 months         |
| Shipping weight - lbs.                                        | Cabinet                                             | 17                      | 18                      |

## MAINTENANCE SUPPLIES - ORDER SEPARATELY

|                        |              |              |
|------------------------|--------------|--------------|
| Replacement Box Filter | <b>19L16</b> | <b>19L17</b> |
|------------------------|--------------|--------------|

<sup>1</sup> Rated at 492 feet per minute

<sup>2</sup> 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               |      |
| <sup>1</sup> 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                    |      |
|                                                               |                                                     | - Final                 | 0.40                    |      |
|                                                               | Expandable filter - Initial                         | 0.31                    | 0.31                    |      |
|                                                               |                                                     | - Final                 | 0.40                    | 0.40 |
|                                                               | <sup>2</sup> Filter estimated service life (months) |                         | Up to 12 months         |      |
|                                                               | Shipping weight - lbs.                              | Cabinet                 | 17                      | 18   |

## MAINTENANCE SUPPLIES - ORDER SEPARATELY

|                                                 |              |              |
|-------------------------------------------------|--------------|--------------|
| Replacement Box Filter                          | <b>X6672</b> | <b>X6675</b> |
| Replacement Expandable Filter (frame and media) | <b>X8306</b> | <b>X8307</b> |
| Replacement Expandable Filter (media only)      | <b>X8312</b> | <b>X8313</b> |

<sup>1</sup> Rated at 492 feet per minute

<sup>2</sup> 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                       |      |
| <sup>1</sup> 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                         | 0.27                 | N/A                       | 0.27                | N/A                       | N/A                       |      |
|                                                               |                                                     | - Final              | 0.40                      | N/A                 | 0.40                      | N/A                       | N/A  |
|                                                               | <sup>2</sup> 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                          | <b>X0585</b> | <b>25Z85</b> | <b>X0585</b> | <b>26Z89</b> | <b>26Z89</b> |
| Replacement Expandable Filter (frame and media) | <b>X8305</b> | <b>N/A</b>   | <b>X8305</b> | <b>N/A</b>   | <b>N/A</b>   |
| Replacement Expandable Filter (media only)      | <b>X8311</b> | <b>N/A</b>   | <b>X8311</b> | <b>N/A</b>   | <b>N/A</b>   |

<sup>1</sup> Rated at 492 feet per minute

<sup>2</sup> 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            |
| <sup>1</sup> 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                |
| <sup>2</sup> Filter estimated service life (months)           |                                                                 | Up to 12 months     |
| Shipping weight - lbs.                                        | Cabinet                                                         | 15                  |

## MAINTENANCE SUPPLIES - ORDER SEPARATELY

|                        |       |
|------------------------|-------|
| Replacement Box Filter | 19L14 |
|------------------------|-------|

<sup>1</sup> Rated at 492 feet per minute

<sup>2</sup> 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                       |
| <sup>1</sup> 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                                     | 0.27                | N/A                       | 0.29                | N/A                       | N/A                       |
|                                                               | - Final                                                         | 0.40                | N/A                       | 0.40                | N/A                       | N/A                       |
| <sup>2</sup> 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   |

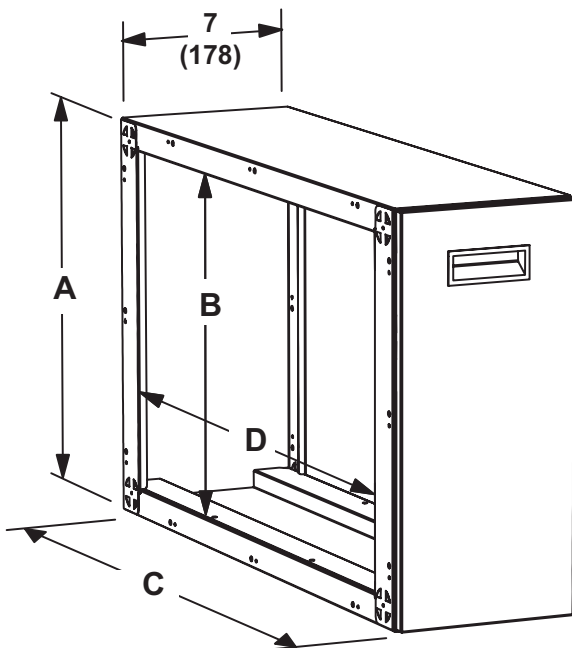
<sup>1</sup> Rated at 492 feet per minute

<sup>2</sup> 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<br>(front to back) |     | Filter Model | Filter<br>Type | Cfm  |
|--------------------|---------------|----------------------------------|-----|--------------|----------------|------|
|                    |               | in.                              | mm  |              |                |      |
| FURNACE MIODELS    |               |                                  |     |              |                |      |
| 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                               | 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<br>(cfm) | Pressure drop (in. w.c.) |          |          |                       |          |          |                       |          |
|-------------------|--------------------------|----------|----------|-----------------------|----------|----------|-----------------------|----------|
|                   | HCF10-11                 | HCF10-16 | HCF14-11 | <sup>1</sup> HCF14-13 | HCF14-16 | HCF16-11 | <sup>1</sup> 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              | ---                      | ---      | ---      | ---                   | ---      | ---      | ---                   | ---      |

<sup>1</sup> Calculated values based on HCF20-13 ASHRAE Standard 52.2-2017 performance.

## FILTER AIR RESISTANCE

## HCF BOX FILTER

| Air Flow<br>(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     |

<sup>1</sup> Calculated values based on HCF20-13 ASHRAE Standard 52.2-2017 performance.

## FILTER AIR RESISTANCE

## HCXF EXPANDABLE FILTER

| Air Flow<br>(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<br>Rating  | Filter Efficiency (percentage) |                            |                             |
|----------------------------------------------------------------------------------------------|-----------------|--------------------------------|----------------------------|-----------------------------|
|                                                                                              |                 | E1<br>(0.3 to 1.0 microns)     | E2<br>(1.0 to 3.0 microns) | E3<br>(3.0 to 10.0 microns) |
| HCF10-11<br>HCF14-11 / HCXF14-11<br>HCF16-11 / HCXF16-11<br>HCF19-11<br>HCF20-11 / HCXF20-11 | <sup>1</sup> 11 | 28%                            | 65%                        | 87%                         |
| HCF14-13<br>HCF16-13<br>HCF20-13                                                             | <sup>2</sup> 13 | 54%                            | 86%                        | 99%                         |
| HCF10-16<br>HCF14-16 / HCXF14-16<br>HCF16-16 / HCXF16-16<br>HCF19-16<br>HCF20-16 / HCXF20-16 | <sup>1</sup> 16 | 95%                            | 99%                        | 100%                        |

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

<sup>2</sup> 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)       |                | •        | <b>Option 1</b> - No duct transition required, use Return Air Base (98M58).<br><b>Option 2</b> - 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               |                | •        | <b>Option 1</b> - No duct transition required, use Return Air Base (98M59).<br><b>Option 2</b> - 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.                                                                                                                           |

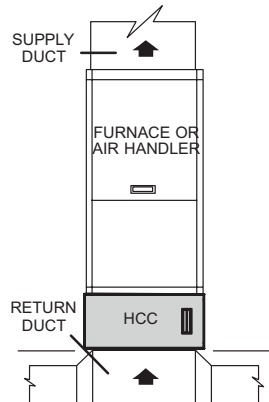
## MATCH-UPS - FILTER CABINET WITH AIR HANDLER

ALSO SEE ILLUSTRATIONS ON NEXT PAGE FOR ADDITIONAL DETAILS

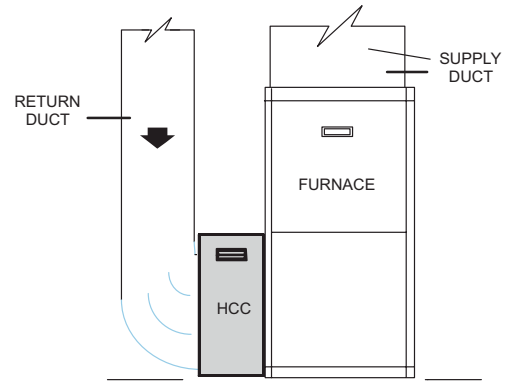
| Air Handlers                                                                                                         | Filter Cabinet |          |          |          |          | Comment                      |
|----------------------------------------------------------------------------------------------------------------------|----------------|----------|---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

## MATCH-UPS - FILTER CABINET WITH FURNACE / AIR HANDLER

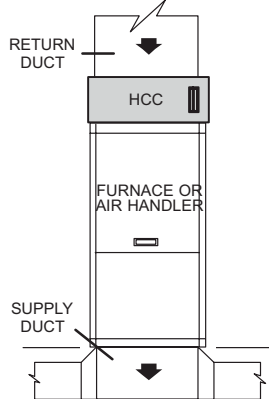
**UPFLOW FURNACE/AIR HANDLER  
(Bottom Return Air)**



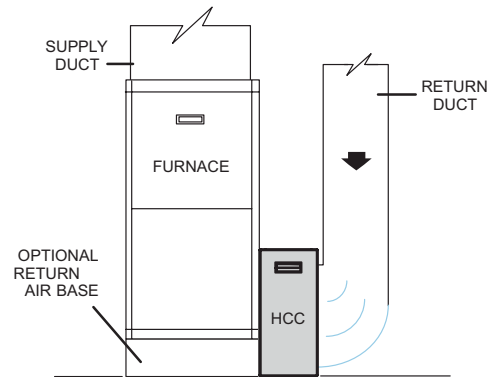
**UPFLOW FURNACE  
(Side Return Air – up to 4 ton)**



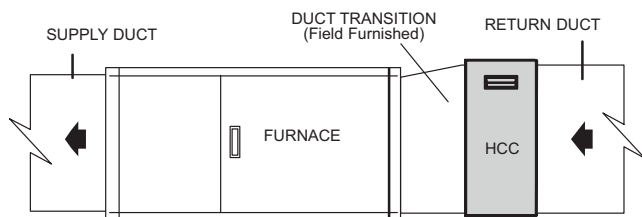
**DOWNFLOW FURNACE/AIR HANDLER  
(Top Return Air)**



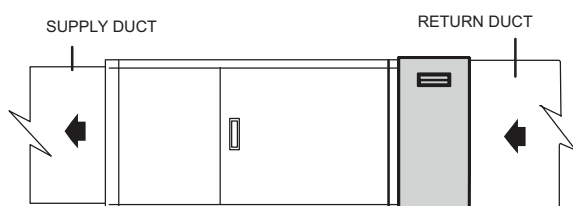
**UPFLOW FURNACE  
(Option 1 – Side Return Air – 5 ton)  
(With Optional Return Air Base)**



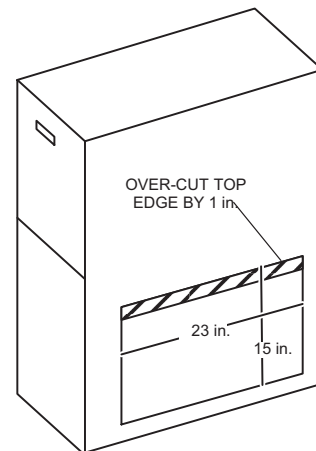
**HORIZONTAL FURNACE**



**HORIZONTAL AIR HANDLER**



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





## 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



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