#### THE WORLD LEADER IN CLEAN AIR SOLUTIONS

# C-3 and C-4 Crank Lock

## HEPA FILTER HOUSINGS

- Choice of frame construction materials
- Stainless steel filter locking mechanism for strength, durability, and long-term integrity
- Access for up to four filters and prefilters wide per door for quick filter changeout
- Double pin hinges enable the doors to make level contact with the door gasket for a uniformly tight seal

#### **Options**

- Choice of frame construction materials
- Insulation
- Lifting lugs
- Transitions
- Static pressure ports
- DOP test ports
- High temperature modifications
- Weathercap
- Magnahelic gauges (mounted)
- Prefilter track

C-3 and C-4 Side Access
HEPA/ULPA Filter Housings are
designed for use with nominal
12" deep HEPA/ULPA filters.
They are factory-assembled flanged
units suitable for gel sealed or gasket sealed
HEPA filters. Both the prefilters and the primary HEPA/
ULPA filters are serviceable through the same gasketed side access door.

### **Versatility**

C-3 and C-4 housings may be used with BioCel™ I filters (95% DOP efficiency), and with AstroCel®I, AstroCel I HCX, Alpha Cell® and Alpha™ 2000 filters (99.97% and 99.99% DOP efficiency). Standard housings accept nominal 12″ deep filters and 16″ and 18″ carbon adsorbers in a variety of face sizes. They can be arranged from one filter high and one filter wide, to four filters high and eight filters wide. If large housings are not practical to rig into place, smaller units may be stacked in the field.

#### Construction

Housings are 24" deep in the direction of airflow, 26" deep if it has a 4" prefilter section, and are constructed in your choice of frame materials. Flanges are furnished for duct connections on the air entering and air leaving sides. All joints are intermittently welded and finished to remove all burrs and sharp edges. The joints are then sealed with silicone enabling the housing to withstand an internal pressure of +/- 3.0 in. w.g.

The filter locking mechanism for the fluid gel seal-model housing is a 300 Series stainless steel hand-operated arm that moves the filter's gel-filled channel on to the internal housing knife edge sealing flange. The same mechanism also pulls the filter away from the sealing flange when changing filters. The filter locking mechanism for gasket seal-model housing is a 300 Series stainless steel and brass device. The mechanism presses the gasketed filter against the housing's sealing surface by means of a mechanical bolt and thrust assembly that is manually operated using a standard  $\frac{3}{4}$ " socket or wrench.

C-3 and C-4 housings also include standard 2" or 4" prefilter tracks, which are designed to accommodate pleated panel filters. We recommend choosing a filter with a minimum of MERV 8 efficiency, such as the AAF Flanders MEGAPleat.® Higher-efficiency pleated filters, such as PREpleat® M11 or M13, can also be used. Access doors have ½" thick closed cell neoprene gaskets around the inside perimeter. Double pin door hinges which pivot, allow the door to make level contact with the gasket when closed. Stainless steel wing nuts secure the doors.

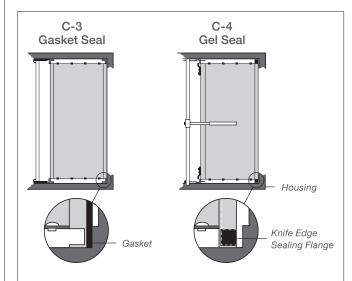


# C-3 and C-4 Crank Lock HEPA Filter Housings

#### **CFM Capacities and Dimensions Using Standard and High Capacity HEPA Filters**

Height Code	Face Velocity (FPM)	Width Code								
		1W	2W	3W	4W	5W	6W	7W	8W	
		CFM Capacity								
1H	500	1000	4000	6000	8000	10000	12000	14000	16000	
	275	1100	2200	3300	4400	5500	6600	7700	8800	
	375	1500	3000	4500	6000	7500	9000	10500	12000	
	500	2000	4000	6000	8000	10000	12000	14000	16000	
2H	500	4000	8000	12000	16000	20000	24000	28000	32000	
	275	2000	4000	6000	8000	10000	12000	14000	1600	
	375	3000	6000	9000	12000	15000	18000	21000	24000	
	500	4000	8000	12000	16000	20000	24000	28000	32000	
3H	500	6000	12000	18000	24000	30000	36000	42000	48000	
	275	3000	6000	9000	12000	15000	18000	21000	24000	
	375	4500	9000	13500	18000	22500	27000	31500	36000	
	500	6000	12000	18000	24000	30000	36000	42000	48000	
4H	500	8000	16000	24000	32000	40000	48000	56000	64000	
	275	4000	8000	12000	16000	20000	24000	28000	32000	
	375	6000	12000	18000	24000	30000	36000	42000	48000	
	500	8000	16000	24000	32000	40000	48000	56000	64000	

- 1. Height and Width code: the first numeral represents the number of 24" x 24" filters high and wide.
- 2. Standard housing depth is 24" with or without an optional prefilter track.
- 3. Housings greater than four wide must have filter removal from both sides.
- 4. Capacities shown are based on nominal 12" deep filters.



A spring-loaded filter clamping mechanism is used to maintain sealing pressure for gasketed filters. The gasket seal is suitable for many applications. A flange in the housing mates into a gel-filled channel on the filter. The gel seal guarantees filter-to-frame sealing and is recommended for critical applications.

### **Filter Usage and Housing Weight**

Height	Filters/	Width Code								
Code	Weight	1W	2W	3W	4W	5W	6W			
1H	Filters	1	2	3	4	5	6			
	Weight	105	190	270	380	460	540			
01.1	Filters	2	4	6	8	10	12			
2H	Weight	200	305	460	610	765	920			
011	Filters	3	6	9	12	15	18			
3H	Weight	255	405	590	810	995	1180			
4H	Filters	4	8	12	16	20	24			
	Weight	325	520	670	1150	1275	1305			

Filters/Weight: Top number indicates the number of filters required to fill the unit. Bottom number indicates the approximate weight in pounds of the housing EMPTY. Add 32 pounds for each HEPA/ULPA filter, and 2 pounds per each prefilter to determine approximate weight when loaded with filters.

Add 10% to calculate the approximate rigging weight of housings

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AAF has a policy of continuous product research and improvement. We reserve the right to change design and specifications without notice.

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