



Clean bench with isolation table

# Series 303

## Horizontal Laminar Flow Clean Bench

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The Series 303 is a general-purpose horizontal flow clean bench ideally suited to many types of mechanical or processing work. It is designed to provide an ISO Class 5 (Class 100) or ISO Class 4 (Class 10) clean air environment suitable for laboratory work, testing, manufacturing, inspection and/or pharmaceutical operations.

The unit is furnished with an open front area, so it can be placed behind a piece of equipment or used with a stand-alone table. The stand-alone isolation table is ideal in applications where vibration isolation is required. Such applications are microscope viewing, critical measuring, or other vibration sensitive work.

The clean HEPA-filtered air flows outward from the cabinet. This horizontal laminar flow air washes out particulates and prevents contamination from entering the clean work zone. The cabinet features "clean edge" construction that puts the hood in shear with the media edge of the HEPA filter. This reduces turbulence along the sides of the hood and improves the laminar flow and prevents contamination infiltration around the perimeter of the hood.

### Features

- ❖ FLEX DUCT provides a factory sealed clean laminar airflow system with simple front HEPA filter removal
- ❖ HEPA filter 99.99% efficient
- ❖ Duplex outlet for auxiliary equipment
- ❖ Motor speed variable with solid state controller
- ❖ Protective grill for absolute filter
- ❖ Fiberglass prefilter easily removable
- ❖ "Clean edge" air-shear of the absolute filter
- ❖ Superior quality, excellent appearance, and ruggedness have been achieved through the use of new wrap-around structural design
- ❖ Vinclad steel or painted structural materials offer the ultimate in appearance and a surface resistant to abuse
- ❖ Shipped fully assembled ready for operation, certified to meet or exceed ISO Class 5 of ISO Standard 14644-1 (Class 100 conditions of Federal Standard 209E)
- ❖ Selected sizes and options UL listed



For more information or to download or fax this product from the web, simply go to:

[www.cleanairproducts.com/303](http://www.cleanairproducts.com/303)

## Series 303 Horizontal Laminar Flow Clean Bench

### Overview

The Series 303 clean bench cabinet has all-metal construction with a Vinclad exterior.

The unit has a hood but no table top. This allows a free-standing table or piece of equipment to be placed in front of the unit.

Two white fluorescent lamps, with energy efficient ballast, are provided to illuminate the work area. An on/off switch is provided for lamp control.

The work area hood assembly is fabricated of clear polycarbonate. The hood provides a controlled work area and assists in directional air flow.

Standard floor to table top height measured to the underside of the hood is 30 inches. The length and height will depend on the process it is used for. Standard widths are 2-1/2 inches over nominal 3, 4, 5, 6, 8 foot increments and the interior depth (interior table or working space) of 21-1/2 inches. The overall cabinet width, depth and height will depend on the size of unit chosen.

### Cabinet

Heavy gauge white Vinclad steel exterior finish. The vinyl is 8 to 10 mils in thickness and is laminated to provide an attractive appearance and toughness. It is superior to paint and plastic laminate over board material. It is resistant to abrasion, corrosion, stains, and attacks by chemicals. Vinclad will not support combustion; it is resistant to scratch or scuff, will not chip, craze or crack. Vinclad is peel proof and has moderate acoustical control.

The work area hood assembly is fabricated of clear polycarbonate. The hood provides a controlled work area and assists in directional air flow.

### Filter

The final filter is 99.99% effective on 0.3 micron and larger particles.

Standard final filters have an aluminum anodized frame, painted white metal faceguard and mini-pleated filter media construction. Filters are removable through the table top enclosure area. Optional ULPA filters, 99.999% on .12 micron are available.

### Negative Pressure Plenum for Final Filters: HEPA or ULPA

The Series 303 utilizes the HEPA FLEX duct system to provide air flow from the blower to the HEPA filter. This ducting system in conjunction with the cabinet blower provides a negative pressure area on the cabinet interior. The negative pressure serves as a safety seal that prevents gasket leaks which can occur in positive pressured filter systems.

### Prefilters

The 1.0 inch fiberglass prefilter is removable from the front lower cabinet and is accessible behind the hinged prefilter grill.

The cabinet has a large prefilter area to keep the filtering efficiency high and to minimize the pressure drop across the prefilters. The prefilters are shipped in place. The cabinets have a commonly available 20x25x1 and 20x20x1 disposable prefilter style depending on its size. These prefilters are interchangeable in size with prefilters of higher efficiency. The higher efficiency prefilters can be ordered with the unit or upgraded with the first prefilter change.

### FLEX DUCT

The FLEX DUCT filter system provides a negative pressure area between the interior cabinet and the HEPA filter/FLEX DUCT assembly. The FLEX DUCT connects to the blower and is permanently sealed onto the HEPA filter. The negative pressure area prevents gasket leaks by keeping the gasket seal under a negative pressure,

collecting any contaminated air and recirculating it through the HEPA filter.

### Airflow

Factory set at 90 FPM; maintained by adjusting blower speed as filter pressure increases with use.

### Light Level

An optional fluorescent fixture can be supplied to provide approximately 80 foot-candles at the table top level.

### Sound Level

The cabinets are designed for quiet operation. The typical sound level is approximately 65dbA. Larger size units and those with multiple blowers may have a slightly higher sound level. The sound levels are measured with ambient of 55dbA. The sound level of your particular unit may vary depending on the size of the unit, surrounding room size and acoustics.

### Electrical

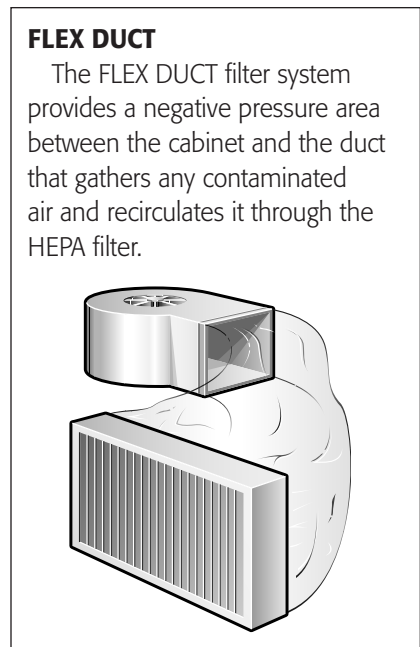
Meets or exceeds requirements of the NEC electrical codes. 120V, single-phase, 3-wire electrical system with 8 foot flex power cord. The motor speed is variable with Solid State controller. 15 amp duplex outlet installed in right front of base for auxiliary equipment. Independent motor and light on/off switches.

Direct drive motor and dynamically balanced blower assembly is isolated from cabinet by rubber mounts and by the FLEX DUCT connection.

### Options

- Removable perforated HEPA filter protective grill
- Safety glass hood
- Extended hood (no built-in table)
- Ultraviolet germicidal lamps
- 36 inch table top height (underside of hood)
- Electrical duplex outlet (additional)
- Casters

- “Minihelic” 0 to 2 inch differential pressure gauge. (HEPA)
  - Stand alone table, Series 61 - Formica or stainless steel
  - Gas cock
  - Bar and hooks for bottle hanging
  - Yellow fluorescent lamps
  - Photoresist yellow lamp sleeves
  - Ion bars and power supply
  - Painted cabinet – color code, manufacturer and chip required
  - Removable side polycarbonate panel – \_\_RH \_\_LH
  - Rolled front edge on table top
  - Casters with locking brake
  - Fluorescent light
  - All Stainless steel construction
  - ULPA filter 99.999% on 0.12 micron particles
- Units can be coupled together to form a continuous work area
  - Special designs upon request Meets requirements of the NEC electrical codes.
    - Shipped fully assembled ready for operation and certified to meet or exceed ISO Class 5 of ISO Standard 14644-1 (Class 100 conditions of Federal Standard 209E).
    - Operations manual and test reports provided with unit at shipment.



**Blower, Motor, Electrical, and Filter Sizes**

			Fluorescent				
303-24	Blower	Motor	Lamp	Electrical*	HEPA Filters**	Prefilters	
324	(1) DD-10-4	1/3HP PSC	(2)	120V/60HZ 9.7 amp*	(1) 24x36x3**	(1)	20x20
424	(1) DD-10-6	1/3HP PSC	(2)	120V/60HZ 12.5 amp*	(1) 24x48x3**	(1)	20x25
524	(1) DD-10-8	1/2HP PSC	(2)	120V/60HZ 12.5 amp*	(2) 24x30x3**	(2)	20x20
624	(1) DD-10-8	1/2HP PSC	(2)	120V/60HZ 12.5 amp*	(1) 24x72x3**	(2)	20x25
824	(2) DD-10-6	1/3HP PSC	(4)	120V/60HZ 19.2 amp*	(2) 23-5/8x47-5/8x3**	(3)	20x25
<b>303-30</b>							
330	(1) DD-10-6	1/3HP PSC	(2)	120V/60HZ 9.7 amp*	(1) 30x36x3**	(1)	20x20
430	(1) DD-10-8	1/2HP PSC	(2)	120V/60HZ 12.5 amp*	(1) 30x48x3**	(1)	20x25
530	(1) DD-10-8	1/2HP PSC	(2)	120V/60HZ 12.5 amp*	(1) 30x60x3**	(2)	20x20
630	(1) DD-10-8	3/4HP PSC	(2)	120V/60HZ 14.7 amp*	(1) 30x72x3**	(2)	20x25
830	(2) DD-10-8	1/2HP PSC	(4)	120V/60HZ 19.95 amp*	(2) 30x48x3**	(3)	20x25
<b>303-36</b>							
336	(1) DD-10-8	1/2HP PSC	(2)	120V/60HZ 12.5 amp*	(1) 36x36x3**	(1)	20x20
436	(1) DD-10-8	1/2HP PSC	(2)	120V/60HZ 12.5 amp*	(1) 36x48x3**	(1)	20x25
536	(1) DD-10-8	3/4HP PSC	(2)	120V/60HZ 19.8 amp*	(1) 36x60x3**	(2)	20x20
636	(2) DD-10-8	1/2HP PSC	(2)	120V/60HZ 19.8 amp*	(2) 36x36x3**	(2)	20x25
836	(2) DD-10-8	1/2HP PSC	(4)	120V/60HZ 19.95 amp*	(2) 36x48x3**	(3)	20x25
<b>303-48</b>							
448	(1) DD-10-8	3/4HP PSC	(2)	120V/60HZ 14.3 amp*	(1) 47-1/4x47-5/8x3**	(1)	20x25
548	(2) DD-10-8	1/2HP PSC	(2)	120V/60HZ 19.8 amp*	(2) 48x30x3**	(2)	20x20
648	(2) DD-10-8	1/2HP PSC	(2)	120V/60HZ 19.8 amp*	(2) 48x36x3**	(2)	20x25
848	(2) DD-10-8	3/4HP PSC	(4)	120V/60HZ 19.95 amp*	(2) 47-1/4x47-5/8x3**	(3)	20x25

\*Includes 3 Amp receptacle.

\*\*3 in. dimension can vary depending on filter type used.

## Series 303 Horizontal Laminar Flow Clean Bench

### Dimensions

The acrylic hood is 30 inches deep with an aluminum extrusion on the bottom edge. The unit is designed to have an optional table set slightly below but not touching the underside of the bottom extrusion.

The underside of the extrusion is at 30.0 inches from the floor -.25 or +3 inches with leg levelers.

#### Overall Width of Cabinet:

##### Dimension "A"

- \_\_\_ 3 foot = 38-1/2 in.
- \_\_\_ 4 foot = 50-1/2 in.
- \_\_\_ 5 foot = 62-1/2 in.
- \_\_\_ 6 foot = 74-1/2 in.
- \_\_\_ 8 foot = 98-1/2 in.

#### Work Area Width: Dimension "B"

- \_\_\_ 3 foot = 34 in.
- \_\_\_ 4 foot = 46 in.
- \_\_\_ 5 foot = 58 in.
- \_\_\_ 6 foot = 70 in.
- \_\_\_ 8 foot = 94 in.

#### Work Area Height: Dimension "C"

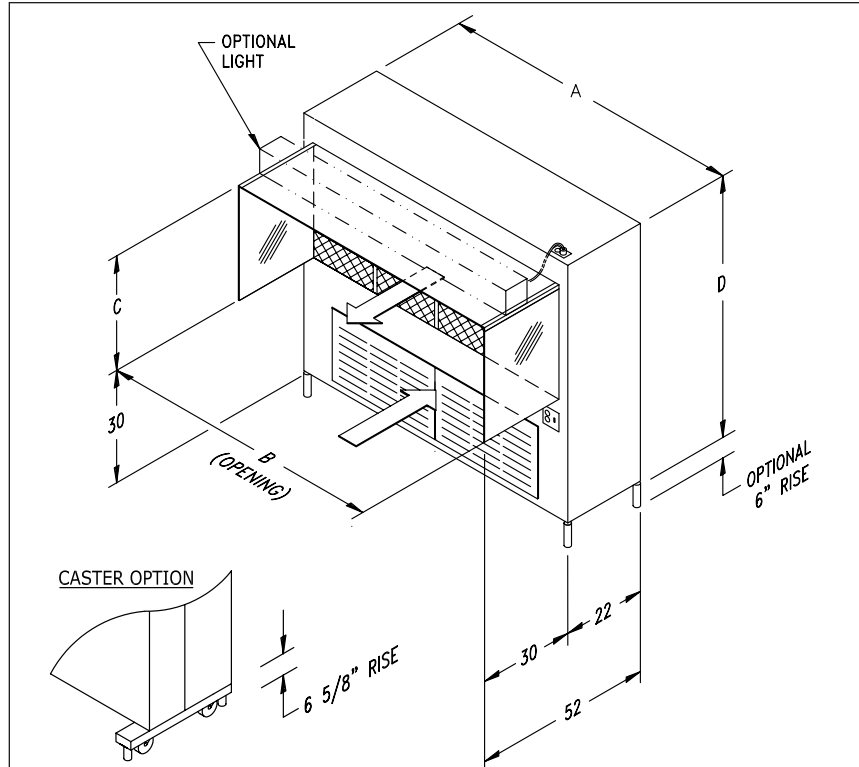
- \_\_\_ 22 in. (24 Series)
- \_\_\_ 28 in. (30 Series)
- \_\_\_ 34 in. (36 Series)
- \_\_\_ 46 in. (48 Series)

#### Overall Height of Cabinet:

##### Dimension "D"

(Add 6.0 inches for 36-inch high table top option.)

- \_\_\_ 58.0 in. (24 Series)
- \_\_\_ 64.0 in. (30 Series)
- \_\_\_ 70.0 in. (36 Series)
- \_\_\_ 82.0 in. (48 Series)



#### Standard Models

(in inches)

MODEL	A	B	C	D
CAP 303-324-30H	38 1/2	34	22	56 1/2
CAP 303-330-30H	38 1/2	34	28	62 1/2
CAP 303-336-30H	38 1/2	34	34	68 1/2
CAP 303-348-30H	38 1/2	34	46	80 1/2
CAP 303-424-30H	50 1/2	46	22	56 1/2
CAP 303-430-30H	50 1/2	46	28	62 1/2
CAP 303-436-30H	50 1/2	46	34	68 1/2
CAP 303-448-30H	50 1/2	46	46	80 1/2
CAP 303-524-30H	62 1/2	58	22	56 1/2
CAP 303-530-30H	62 1/2	58	28	62 1/2
CAP 303-536-30H	62 1/2	58	34	68 1/2
CAP 303-548-30H	62 1/2	58	46	80 1/2
CAP 303-624-30H	74 1/2	70	22	56 1/2
CAP 303-630-30H	74 1/2	70	28	62 1/2
CAP 303-636-30H	74 1/2	70	34	68 1/2
CAP 303-648-30H	74 1/2	70	46	80 1/2
CAP 303-824-30H	98 1/2	93	22	56 1/2
CAP 303-830-30H	98 1/2	94	28	62 1/2
CAP 303-836-30H	98 1/2	94	34	68 1/2
CAP 303-848-30H	98 1/2	93	46	80 1/2

Note - Units are shipped assembled in one piece. Check all the dimensions to make sure the unit will fit through all doorways. Units can be constructed to fit through a smaller opening, but must be specifically ordered with that option.

**Estimated Weight****303\*24**

324 = 370 lb.  
424 = 400 lb.  
524 = 450 lb.  
624 = 500 lb.  
824 = 680 lb.

**303\*30**

330 = 400 lb.  
430 = 450 lb.  
530 = 500 lb.  
630 = 550 lb.  
830 = 770 lb.

**303\*36**

336 = 450 lb.  
436 = 500 lb.  
536 = 550 lb.  
636 = 600 lb.  
836 = 800 lb.

**303\*48**

448 = 570 lb.  
548 = 650 lb.  
648 = 750 lb.  
848 = 900 lb.

Standard units shipped F.O.B. factory  
by padded van.

Equipment specification, dimensions  
and upgrades are subject to change  
without notice.

**Guarantee**

A written 1 year Warranty is furnished  
with each cabinet.