



Series 701 Air Shower

S
N
O
I
T
U
T
O
S

Air showers serve to protect your cleanroom environment from unwanted contamination. Clean garments become contaminated during the gowning/ungowning process, general use, and because of high traffic in the gowning area. The contamination problem is amplified when the same garment is worn several times or is taken on and off numerous times during the day.

The Series 701 air shower is a fast and effective method of removing this surface contamination, contamination that will otherwise be carried directly to your cleanroom and deposited on your product and critically clean areas by sloughing off from the surface of the garments.

The air shower is quality constructed using heavy gage painted steel (no particle board) to minimize particle generation. The units provide air flow of approximately 1900 CFM through 32 adjustable nozzles yielding a 7800 LFPM nozzle air velocity with optional 9100 nozzle velocities.

It has a knock-down design that allows ease-of-installation and flexibility in use. The unit can be shipped knocked down or completely assembled. When shipped knocked down, all parts will fit through a standard door. All service to the blower, motor and filters is done from inside the air shower. The unit also offers an optional design that allows all the installation assembly to be done from inside the air shower.

Air showers are available in a variety of sizes and shapes to provide a cleaning system to meet your specific application.

Series 701 Air Shower

General

- All metal construction
- Ships knocked down or fully assembled
- Fast, efficient cleaning, 7800 LFPM nozzle (cleaning) air velocity, with 1900 CFM air volume
- HEPA filtered with 40% pleated prefilters
- Variety of sizes, configurations and options
- Low maintenance and easily serviced.

Air showers can greatly enhance your cleanroom's performance by removing surface contamination from clothing and cleanroom garments. Gowning/changing room areas are the interface between a dirty "street clothes" environment and a clean room environment. Unfortunately, the changing or gowning process itself releases contaminants from street clothes that can settle onto the "clean" garments. Air showers blow off and remove much of this contamination preventing it from entering the clean space.

What Makes the Series 701 Air Shower Perform Better

An air shower in many ways can be compared to vacuum cleaner. They are available in a variety of sizes, capacities and features; some work very well while others just seem to make noise. To be effective they need to have high cleaning force and power to do a good cleaning.

Cleaning Force. A good vacuum cleaner has high suction and airflow to pick up dirt. A small vacuum with low suction and airflow does little more than pick up a few crumbs. The same can be said for air showers. Some air showers that have

small blower/motor, low airflow and pressure fall into this category. These under-powered air showers give air showers a bad name. **The Series 701 air shower has high velocity and large air volume for fast, efficient cleaning.**

The Series 701 air showers, as further described, offer the highest velocities combined with large airflow to provide an air shower that quickly and efficiently cleans particulates from the surface of clean room garments. The additional text describes why the Series 701 air showers are the best.

General Operation

The air shower produces high pressure air, filters this air through a HEPA/ULPA filter, then flows the air through adjustable nozzles which exit at a high velocity, so air is directed towards the individuals waiting to be cleaned. This high-velocity air removes surface particles and also "flaps" the garments to dislodge more firmly attached particles. After cleaning, the air is recirculated back to the high-pressure blower, where it is prefiltered, then HEPA/ULPA filtered and then ducted back to the adjustable high-velocity cleaning nozzles.

The air shower utilizes an adjustable microprocessor controller to allow easy "on-sight" adjustment of the cleaning cycle time and other critical process controls.

Construction Materials

The Series 701 air shower is constructed of an all-metal, painted steel shell with **no wood or plastic laminate and is entirely silicone free.** The standard shower has a 16-gage steel shell, heavy-duty glass door, and door closer. The shell and concealed air ducts are finished with

a white powder coat paint which provides a strong, durable cleanroom-compatible finish. The all-steel shell design will stand up to the rigors of shipping, installation, use, and the occasional abuse of a high-traffic entry system. While we don't recommend it, you could hit the metal shell of the air shower with a hammer. It may dent or scratch the paint, but you would not break the cabinet as you would laminated types of construction.

The steel construction also reduces the chances of biological growth and contamination caused by systems using laminated particle board in the construction. Laminated particle board construction is fine for a simple table, but not for a piece of equipment that is being integrated into your cleanroom system.

NOTE: A typical laminated particle board air shower has the plastic laminate on the outside but often has interior concealed air ducts just painted over the raw particle board leaving a rough surface finish that harbors dirt and biological contamination. As the particle board ages and deteriorates, parts will flake off, becoming a source of contamination. All-metal, painted steel or stainless steel air showers are the best type of air shower to purchase.

Option: Stainless Steel Air Shower

With the stainless steel shell option, the shell of the exterior and interior air shower is stainless steel. Parts located in the blower compartment behind the interior access panel, i.e., blower, motor, filter support clamps, etc., are standard painted or plated materials and not stainless steel. Consult the factory for further details.

Option: Stainless Steel Main Electrical Control Box

The main electrical control panel mounted above one door on the exterior of the cabinet is a gray painted steel. This control panel contains the microprocessor controller, starter, thermal overloads, fuses, relays, power shut off, and other electrical components.

Option: Pharmaceutical Applications.

The Series 701 has a special set of options specifically designed for pharmaceutical and other applications where microbial contamination is a concern. Please consult the factory for details.

Shipping Knocked Down

The standard unit is shipped partially disassembled on a skid. To assemble the unit, the blower section is taken off the skid and raised into position. The two-side wall sections are then bolted from the outside onto the upper blower housing. At this point, the assembly is self-supported. The doors are attached, power is connected, and the unit is ready to run. With proper equipment and trained personnel the air shower can be assembled in as little as approximately two hours.

Assembly is fast and uncomplicated. Each unit is shipped with a detailed installation/operation/maintenance manual. We do recommend a mechanical lift(s) to assist in the assembly process.

The CAP701-4954 and CAP701-4972 air shower components, when uncrated, normally will fit through a standard 3 ft. x 7 ft. doorway. If your application requires the parts to go through a 3 ft. x 7 ft. door frame, please specify this and consult the factory for part sizes if your application. All the air shower components will

go through a 6 ft. x 7 ft. double door unless noted.

NOTE: With the ceiling purge option, the upper blower cabinet is too large to fit through a 3 ft. x 7 ft. standard door.

Option: Ship Fully Assembled on its Side

The unit can be shipped fully assembled on its side and requiring only to stand the unit up. When shipping on it side, there are typically two eye bolts on the top that can be used to lift the unit. The assembled CAP701-4954 and CAP701-4972 will fit through a 6 ft. x 7 ft. double door. Tunnels can ship in sections.

Option: Assemble From Inside Unit

The unit can be manufactured to allow the installation to be performed from inside the air shower. This is ideal for locations where walls or other obstacles prevent assembly work from the outside of the unit.

Service Access

Service to the mechanical equipment, blower, motor, HEPA filter and prefilter is easily done from the inside of the air shower through a hinged access panel located in the interior ceiling of the air shower.

This is desirable because you don't have to penetrate the clean room ceiling surrounding the air shower for maintenance. Also, the area around the air shower is not accessible because of ceiling filters, lights, ducts, pipes, walls or other equipment that would make service from the exterior difficult or impossible with exterior-mounted service panels.

The unit's electrical control panel is conveniently mounted on the outside of the air shower above one of the entrance doors (see the drawing details), and is serviced from outside the air shower.

Option: The control panel can be located in other upper side positions, on a lower exterior side wall, or can be remote-mounted.

ADA Compliance

Sometimes the air showers must comply with the ADA or Americans with Disabilities Act. This act requires the inside of the air shower to be larger so that an individual in a wheel chair can turn around inside the air shower. See the CAP701-7172-ADA drawing for sizes and details. Automatic door openers are an option that also may be required. Consult your local code officials to see what is required for your application.

Doors

The doors are a heavy-duty aluminum-framed, glass-style with a full-clear safety glass viewing panel. The door assembly has a clear anodized finish on both the door and door frame. Each door is furnished with heavy-duty door hinges and a door closer.

Options:

- Door options include: double doors, power swing, stainless steel frame, power sliding and painted steel, with viewing window.
 - Air showers can be furnished without a door(s) on one end so the unit can butt against an existing door. A door interlock magnet can be shipped loose for field mounting. When interfacing with an existing or sliding door, the air shower can be furnished with a dry contact to automatically open the door at the end of the cleaning/wait cycle.
- Kick plate in lower half of glass doors, yellow safety acrylic versus clear glass, thresholds.

Series 701 Air Shower

- Vertical and horizontal sliding doors are often used when the air shower is used for parts cleaning.

These door configurations can have a variety of options and air shower sizes depending on the application. The air shower is typically shorter when used with carts and taller when a conveyor is being used to transfer parts to, through, and away from the air shower.

Note: When vertical sliding doors are used, the overall height of the doors can exceed the rest of the air shower because of the door lifting mechanism and travel of the door. Consult the factory for details on your specific application. Items necessary to know:

- (1) Size of parts being cleaned.
- (2) If conveyor is used, height of the floor to top of conveyor. This will assist us in determining door travel and overall size of the door and lifting mechanism.

Electrical Supply

The standard requirement for the air shower is a 208 V 60 Hz, three-phase, four-wire. See attached sheets for specific power requirements. Typical units are 13.6 FLA per blower section. Multiple sections would increase the total power required.

Motor starters and disconnects on main control panel are provided as standard. They are mounted above one of the doors going into the air shower as standard. Local code or installation conditions may require an additional disconnect switch.

Options:

- Units can be ordered for connection to a 480 V 60 Hz, three-phase, four-wire. A 480/120 V transformer circuit then provides power for the controls and lights. Typical units are 6.8 FLA per blower

section. Multiple sections would increase the total power required.

- Units can be ordered for connection to a 575 V 60 Hz, three-phase.
- Units can be ordered for connection to a 360 V 50 Hz, three-phase, four-wire.
- Units can be ordered for connection to a 220 V 50 Hz, one-phase, four-wire.

Note: 50 Hz will reduce air shower performance. Consult factory about details on frequency drive to increase performance

Electrical Control Panel

The control panel includes the starter, thermal overloads and microprocessor controller (PLC) used for timing the cleaning cycle and controlling the interlock of the doors, along with the starting of the air shower.

Microprocessor Controller and Door Start Switch

A microprocessor controls the starting of the air shower so that the unit will only start when people are going through in one direction. On applications where there is bi-directional travel through the air shower (people using the shower to both enter and exit the cleanroom) the air shower only starts when people are going into the cleanroom, not when they are leaving.

The cleaning time sequence is field adjustable by turning a potentiometer on the face of the controller. There is one knob for adjusting the cleaning time, 0-180 seconds and a second knob for controlling the purge or "wait time" (the time after the cleaning cycle ends and the door unlock allowing exiting of the air shower). The wait time is adjustable from 0 to 15 seconds.

Note: Only units with magnetic door interlocks have the door start switch; other units have a wall start switch.

Standard Program Sequence with Door Interlock Magnets:

Traveling from gown room into the clean room.

- Gown Room Door A opens, cleanroom Door B locks (magnetic interlock).
- Door A shuts, both Door A & B lock and cleaning cycle starts.
- At the end of the cleaning cycle both doors remain locked 0 to 15 seconds (adjustable) for the purge/wait time.
- At the end of wait time, Door B unlocks (people can leave air shower) but Door A stays locked until people have left the air shower and Door B shuts.
- When Door B shuts, both Door A and B are unlocked and people can enter the air shower from either direction.

Traveling from the Cleanroom to the Gown Room:

- Door B opens, Door A locks.
- Door B shuts, Door A unlocks.
- Door A opens, Door B locks.
- People exit the shower.
- Door A shuts, both Door A and B are unlocked.

Note: It is very easy to reverse the door sequence that starts the air showers, so rather than Door A starting, the cleanroom Door B can start the air shower.

Wall Start Switch

The wall start switch is standard WITHOUT door interlock magnets. When someone enters the shower they would have to press the wall start button to activate the cleaning cycle. When the door interlock magnets are used, the unit uses the doors to start the unit.

Option: Photo electric eye to start the air shower. Typically used in long tunnel configuration when large quantities of people are using the air shower. With this application, people typically exit the room through a different door.

Lighting

The standard unit includes interior fluorescent lighting with interior wall light switch.

Exit Light Indicator Sequence

The following sequence is part of the standard microprocessor controller program but needs to be turned on when you get the air shower.

The interior fluorescent light of the air shower is normally off, indicating it is okay to enter the air shower. (It also conserves power.) When either door opens, the internal fluorescent light turns on. The light will stay on through the cleaning cycle time and purge/wait time. At the end of the wait time the interior light will flicker off then back on to indicate it is time okay to exit the shower. The light will remain on while people are in the air shower, but turns off when exit door has shut, indicating it is okay to enter the air shower.

In most applications, the people using the air shower are trained on gowning, cleanroom protocol and how to use the air shower. With the same people using the air shower every day, the automatic turning on and off of the interior light works extremely well as a reminder when to enter and when to exit the air shower.

Optional Door Interlocks

A low-voltage magnetic door interlock prevents both doors from being opened at the same time. When one door is opened, the other door's magnet is energized which prevents

the door from opening. During the cleaning cycle, both doors magnets are energized (locked) to prevent anyone from entering or leaving before the cycle is completed.

When door interlocks are installed, three "emergency power off" (EPO) panic buttons are provided on the interior and both exterior ends of the of the shower. When the EPO button is pressed, the interlock magnets deactivate and both doors can be opened, because pressing the EPO button deactivates the interlock system and unlocks the doors.

When the EPO button is pressed, interlocks are deactivated and an audible alarm sounds alerting individuals to the emergency condition. A dry contact (for a remote sensor or alarm) is available to indicate that the EPO system has been activated. The alarm is turned off by a key switch on the inside wall of the air shower.

Note: With the door interlock magnets, a door start switch is used and the wall start switch is eliminated.

Blower/Motor

The blower wheel is an energy-efficient backward-curved aluminum airfoil. It is direct-drive-mounted to an efficient 5 HP, three-phase motor with sealed ball bearings for low maintenance and long life. The complete assembly is vibration-isolated from the rest of the air shower.

The blower assembly is mounted on top of the unit with the Series 701 and is serviced through an access panel on the interior of the air shower.

Filters

The system uses a high-capacity 24 in. x 24 in. x 12 in. deep HEPA wood-framed filter that has a 99.97% efficiency DOP test rating on 0.3 micron particles.

Options:

- 99.99% HEPA metal-framed filter
- 99.999% ULPA metal-framed filter

The HEPA/ULPA filter are serviced through an access panel located in the interior ceiling if the air shower.

The four 10 in. x 20 in. high-efficiency pleated prefilters are located on the lower internal side walls behind a hinged perforated grill to allow easy access. Prefilters with the raised floor option are located in the upper blower compartment or under the floor grate depending on the options ordered.

Air Nozzles

There are 32 adjustable air nozzles in each standard air shower section, 16 per side. This provides a uniform concentration of nozzles for fast, effective cleaning.

The nozzles are aluminum with a clear anodized finish. They have a 1.2 in. inside diameter, with approximately 7800 LFPM (9000 LFPM peak) nozzle velocity. (Peak velocity is the highest velocity measured at the outlet of the nozzles.) This high nozzle velocity provides more cleaning force to effectively dislodge particles and other contaminants.

Air Flow Capacity

The Series 701 provides approximately 1900 CFM total. With this high air flow volume (power), and the high nozzle velocity (force), the people inside the air shower are cleaned faster and more effectively.

Sprinkler Sleeve

The air shower comes with an internal sprinkler sleeve that allows the sprinkler pipe and head to easily be installed (by others). Consult factory for details.

Series 701 Air Shower

Flooring Inside Air Shower

The air shower uses the existing building floor.

Optional Raised-Grated Floor Air Return

A raised floor can enhance the performance of the air shower, especially with high traffic or where critical cleaning is required.

The raised floor option has a heavy-duty floor grate made with 1/8 in. x 1 in. vertical-mounted bars which run the length of the shower and are close enough together to easily walk on. The large open area between the bars allows most of the dirt and other contamination to fall through the grating into the lower containment area. The small amount of top area of the 1/8 in. bars are "self cleaning" in that as people walk over the bars, contamination that may have settled on the top edge tends to be pushed off and falls into the lower containment plenum.

As the air comes out of the nozzles, it cleans the people inside and flows downward through the floor grate and into the return air plenum, pulling with it contamination that otherwise would settle out on a solid floor. The floor area is less turbulent than with a solid floor because of the air flowing through the grate. The top of the floor grate stay cleaner; dirt and contamination is contained in the lower plenum.

The floor grate can be easily removed to allow periodic cleaning of the lower plenum. The 6 in. lower plenum typically is mounted below the cleanroom, so the interior grated floor of the air shower is flush with the existing cleanroom floor. Consult factory for details of installation.

Optional Ceiling Air Purge

The air shower can be equipped

with an internal ceiling HEPA/ULPA filter to provide a constant downward airflow.

When the ceiling purge filter is used in conjunction with the optional motor breaks, the interior of the air shower is purged of contamination prior to the cleanroom door being opened. The length of the purge/wait time is adjustable from 0 to 15 seconds. The interior light flicker option is used to indicate when the purge time is complete and the person can enter the clean room.

Note: With the ceiling purge option, the upper blower cabinet is taller than the standard blower cabinet and will not fit through a standard 36 in. door opening. Consult factory or drawings for details.

Optional Variable Frequency Drive, Nozzle Air Purge

The air shower can be equipped with a variable-frequency drive that allows the blower to run at a low speed when not in the high-velocity cleaning cycle. This low, constant air moving volume keeps the interior of the air shower cleaner by purging and cleaning the interior.

Optional Point Ionization

DC pulse-type point ionization can be mounted in the side walls of the air shower to help reduce static charges.

Optional Magnahelic Pressure Gages

The unit can be furnished with Magnahelic air pressure gages to sense the differential pressure across the HEPA filter and/or prefilter, to indicate when the filters need servicing.

A gage can also be used to measure the air pressure supplying the nozzles. The pressure supplied to the nozzles is directly proportional to the velocity

of the nozzles. This pressure can then be used to indicate if there was a problem with the nozzle velocity, which is typically caused by a dirty HEPA filter or prefilter.

Air Conditioning/Cooling

The typical air shower may have an internal temperature warmer than that of the surrounding ambient; most applications have about a 10 degree temperature rise. Units with a high duty cycle can have over a 20 degree temperature rise. The typical time spent inside the air shower is approximately 10 to 15 seconds. People are in and out of the shower before it would become a problem.

When supplying air conditioning to the air shower it is recommended to use a self-contained air handler that recirculates air within the air shower. Optional self-contained A/C units can be installed on the air shower. Please contact the factory for further details on cooling.

Optional Air Shower Styles and Configurations

90-Degree Air Showers

The air shower can be provided with the doors in a 90-degree configuration for those applications that straight in will not work.

Three-Door Air Showers

This air shower has three doors. The typical configuration is one entrance door and two doors exiting to two different cleanrooms.

Multiple-Units Tunnel

Two or more air showers can be combined to form a longer unit. By adding complete sections, an efficient arrangement for the nozzles will be maintained.

These tunnels can be used for “large batch” cleaning (if a large number of people will enter and exit as a group), or for “continuous flow” cleaning (where the showering time is how long it takes to walk the length of the tunnel).

Both 90-degree and straight-through air showers can be combined to form the tunnel configuration.

NOTE: The cost for additional sections is lower than for the basic unit, because the cost of the doors and electrical control is covered by the first unit and additional units don’t need these items.

Low-Profile Air Shower

The Series 701LP (low-profile) model has an overall assembled height of 95 in. The unit has the blower assembly, HEPA filter, and electrical components mounted on the side to permit the lower height. It can be assembled in a space 96 in. high, making it ideal for retrofits or areas where penetrating the ceiling is undesirable. The unit is shipped disassembled to the point that all parts will fit through a standard doorway.

Service access to the blower assembly, filters, and electrical components is through two doors on each end of the unit. This is standard.

Note: When installing the low-profile unit, it must stick through the wall so that the end access doors are available to service the blower and filters. Contact the factory for additional details.

Floor-Mount Cart/Parts-Cleaning Air Showers

Parts-cleaning air showers are available in a variety of sizes, shapes and configurations. They are available to be used with carts, conveyors, pallets and continuous-part operation.

This style of air shower can use swing doors, vertical-sliding, horizontal-sliding or no doors. Please consult factory with details of your specific application, so we can configure an air shower that will meet your specific needs.

Wall-Mounted Pass Thru Air Showers

Similar to the parts-cleaning, but smaller and mounts off the floor. Consult the factory for details.

Air Showers for Decontamination of Individuals When Leaving a Controlled Space:

These air showers are similar to the standard air shower but have a few common options.

- 1) They typically do not have door interlocks.
- 2) They have wall start switches.
- 3) They often are not walk through, but only have one door, and the end without the door is put against an existing wall so you enter and exit through the same door.
- 4) Lower side-wall prefilters unless grated floor option is chosen.
- 5) A respirator should be used for the toxic materials being cleaned off. RESPIRATOR IS ONLY REQUIRED FOR DECONTAMINATION OF TOXIC MATERIALS.
- 6) Optional compressed-air fitting can also be installed to allow additional blow-off during cleaning or to blow air into the outer coverall to “blow it up” and make it easier to clean the garment.

Consult the factory for details.

Custom Features

Many other customized sizes and features can be provided. Contact the factory for more information.

Normal stock size is CAP701-4954 (single 3 ft. x 7 ft. door both ends, 54” long and 116 in. tall.)

Other Sizes

CAP701-7172-ADA

(sizes for ADA compliance)

Single 3 ft. x 7 ft. door both ends, with interior space large enough for wheel chair to turn around

CAP701-4972

Single 3 ft. x 7 ft. door both ends, 72” long

CAP701-8654

Double door both ends, 54” long

CAP701-8672

Double door both ends, 72” long

Garment Type and Cleaning Effectiveness

The cleaning effectiveness of the air shower is affected by the type of garments, the size, shape and type of contamination. Large light particles such as lint, hair, dander, and skin flakes are the easiest to remove.

Particulate contamination adheres to garments in two basic ways. Either by mechanical entrapment or by an electrical attraction.

Mechanical bonds between the garment and particulate contamination is reduced when smooth surface garments are utilized. These include “cleanroom-designed” garments and those made from synthetic materials such as Tyvek, Gortex, polyester, and nylon, to name a few. These materials are low-shedding and minimize the mechanical bond, making it easier to blow the surface contamination off the garments. Natural fibers, such as cotton, tend to shed particles and their surface finishes tend to have a higher mechanical bond with particles, making them harder to clean.

Series 701 Air Shower

Synthetic garments can develop a static charge. This charge can “hold” a particles to a surface of a garment. To help reduce this charge, garments can be laundered with an “anti-static” agent in the final rinse. This will help reduce the level of static charge on the garments, allowing particles to be more readily removed. Some garments are available with special built-in conductive fibers that can assist in keeping the surface charge to a minimum. Consult your garment supplier for details.

Point Ionization (static neutralization) can be installed on the inside walls to dissipate some of the charge on the garments, helping to reduce the holding charge (force) of the garment, making it easier for the air to blow the particles off.

In many cleanroom applications, much of the contamination in the room is carried in on the garments of the individuals working within the room. Typically they bring it to the most critical area.

Without using an air shower, individuals are often cleaner when they leave the clean space because a large portion of the contamination they had on their garments will have fallen off within the clean space. Using an air shower is an effective way to remove much of the contamination that would otherwise come off within the clean space.

Mounting Against Wall

The air shower can be shipped fully assembled (on its side on the skid) or knocked down with the wall panels off from the upper blower cabinet, allowing the components of the air shower to fit through a 3 ft. x 7 ft. door opening when removed from the shipping skid. If components are required to fit through a 3 ft. x 7 ft. door this should be specifically requested on the quote and order.

The air shower can be installed so the entire air shower sticks through the wall, with space around the air shower. This space is filled with an optional trim angle. The shower can also butt up against a wall with an opening large enough for door and end-mounted hardware. (approximately 48 in. x 90 in.) Please request a quote with a specific job number before planning cut-outs. Different configurations and sizes may require different cut-out sizes.

When the unit is butting against the wall, the contact point between the air shower and the framed opening is typically caulked or small trim molding is applied. The exterior of the air shower would have a trim angle.

Receiving Air Shower

The skid weight for a single CAP701-4954 standard air shower is approximately 1500 lb. The size of the skid when fully assembled is about 68 in. W x 126 in. L x 60 in. H. The skid size when the unit is shipped knocked down is 68 in. W x 144 in. L x 60 in. H. This is reference size and will vary with other size units or when multiple units are shipped together.

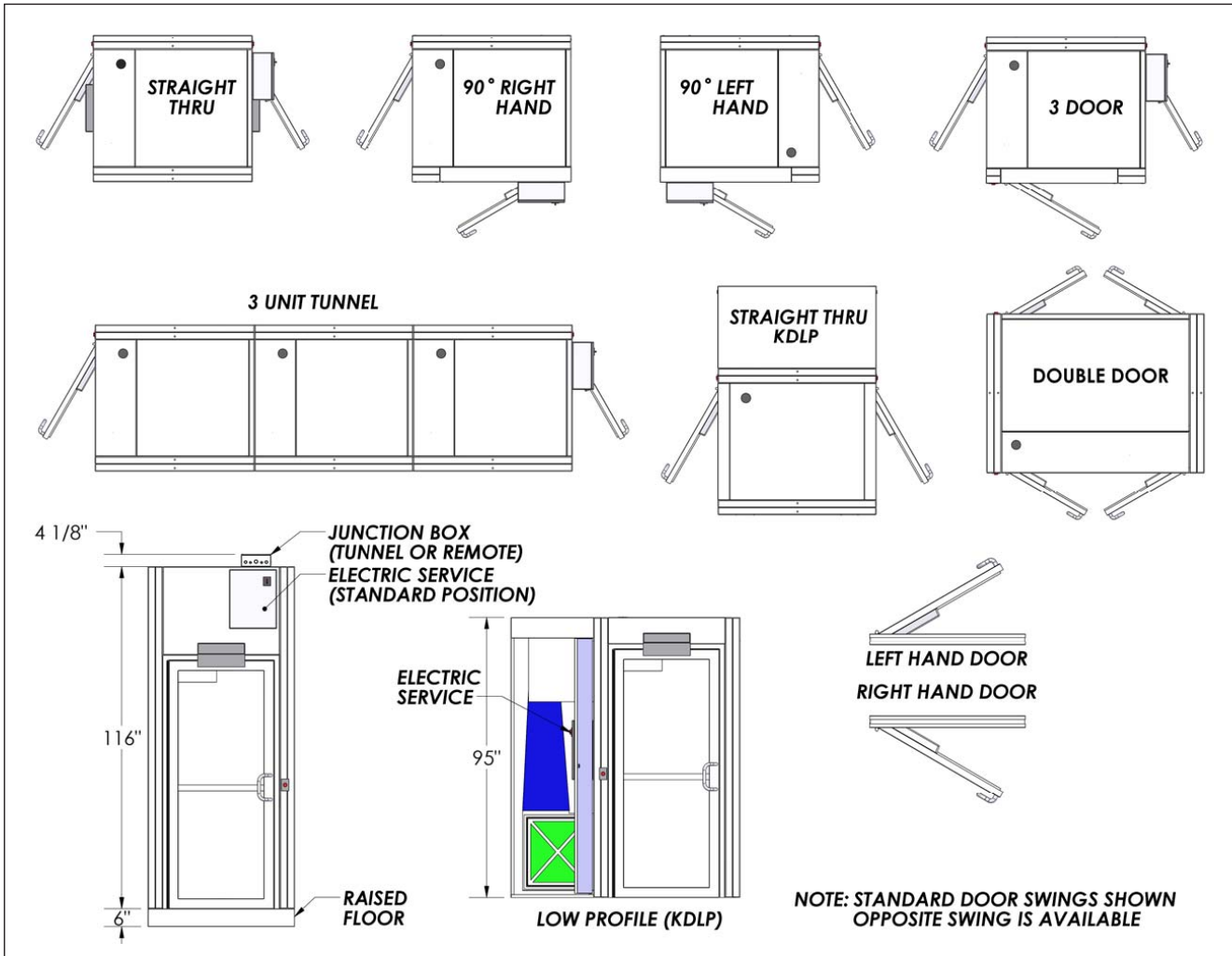
When shipped fully assembled on its side, the weight for a CAP701-4954 is approximately 1300 lb. Two eye bolts located on the top of the air shower can be used to assist in lifting. After standing up the unit, it is then moved into position and leveled using shim stock and is accorded to the floor.

When the unit is shipping knocked down, the CAP701-4954 air shower upper blower cabinet is 650 lbs.. The wall panels are 250 lbs..

NOTE: The knocked down air shower needs room on the sides of the unit during the assembly process to install the 3/8 in. mounting bolts. Once the unit is assembled, no space is required on the sides of the unit.

After the unit is assembled, moved into place and the mounting complete:

- A) An electrician needs to connect power to the air shower, start the unit, and check blower rotation.
- B) A sprinkler contractor needs to install the sprinkler.
- C) The installer touches up the paint, adjusts doors, door closer and magnetic door interlocks, and confirms that high-velocity air is flowing out the nozzles at approximately 90 MPH. If the blower is running backwards, air will come out of nozzles but only at about 15 MPH. Blower rotation can also be confirmed by looking at the blower.
- D) The inside of the air shower and floor must be cleaned.
- E) Caulk and floor anchors are furnished by the installing contractor as required.



Specifications Sheet

Series 701 Air Shower

_____ Model CAP701KD _____ Model CAP701KDLP

Supplied as specified in Series 701 Technical Data Sheet and summarized below, with variations noted under "Options".

Electrical:

Motor..... 5 HP, 3600 RPM, 182T frame, open drip, sealed ball bearing Total # 5HP motors_____

Blower..... Non-overloading aluminum airfoil; direct drive; overhead-mounted

Power Supply 208, 60 Hz, 3 phase, 4 wire FLA (13.6 amps per blower section)

Construction:

Shell..... Cold-rolled steel with a white baked-enamel finish exterior and interior; inside wall panels

Doors..... Glass doors; aluminum doors and door frames; clear safety glass, closer

Door Swing Both doors hinge on the same side **(No charge for door swing changes, but must be specified on order)**

Nozzles Anodized aluminum; adjustable: total of 32 per section Total Nozzles _____

CFM: 1900 per section Total CFM _____

Nozzle Velocity: 7800 LFPM average (9100 peak)

Filters..... HEPA: 24 in. x 24 in. x 12 in.; 99.97% filtration of 0.3-micron particles

Pre-filter: Merv 7

Cleaning Cycle 0 to 30 sec. Microprocessor controller with wall-mounted start switch

Door start switch with the magnetic interlocks

Service Access..... Filters, blower, motor, light: access from inside the air shower

Electrical control panel: mounted on outside of the unit, above the door

Shipment Method Shipped partially disassembled; when uncrated, components will fit through a standard 3 ft. 0 in. x 7 ft. 0 in. door

Options:

- _____ Power supply: 480V, 60 Hz, 3 phase, 4 wire FLA (6.6 amps per blower section)
- _____ Disconnect
- _____ Door interlock magnets, audible alarm, (3) EPO and door start switch
- _____ ULPA filter
- _____ Stainless steel construction
- _____ Shipping fully assembled on its side (standard is ship knocked down) Consult factory for details
- _____ Ceiling nozzles
- _____ Raised floor
- _____ Magnehelic gage

Other Options:

