

Abtech Cleanroom Air Showers are prefabricated enclosures to be used for removing surface particles from personnel prior to entering a Cleanroom work area.

The air shower is a high velocity, low pressure type system, providing a normal entrance to and exit from a contamination controlled area. While the workmanship and materials are of a professional quality, the air showers are ultimately engineered to incorporate an aesthetically pleasing design to fit the general atmosphere of the cleanroom specifications. All Abtech Air Showers are assembled and tested directly in the factory for quality control purposes, and then subsequently disassembled for shipping and field assembly.

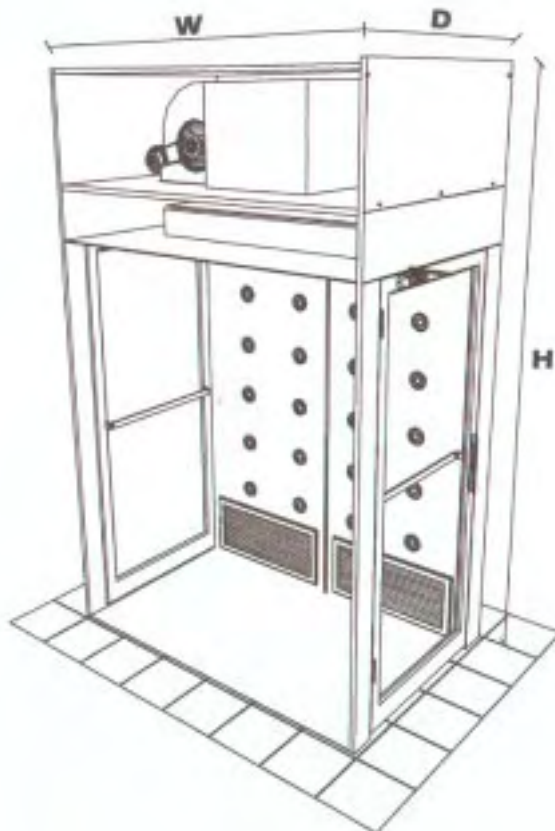
Each assembled Air Shower is a completely self contained unit, equipped with air filtration systems, blowers, motors, controls, a solid-state programmable microprocessor, interlocking doors, lighting, and a pre-wired electrical panel.

Although we offer a wide and varied array of standard Air Shower design packages, we can also customize these units to meet your special needs. Contact us with your requirements and we will demonstrate our proficiency by designing an Air Shower that will work the way you need it to.

Typical configurations include, but are not limited to, straight thru patterns, right turn patterns, left turn patterns, U-shaped patterns and T-shaped patterns.

All units are carefully packaged for transportation, and are shipped by recognized carriers at the lowest applicable rate.

Abtech Air Shower



The Construction of our Air Showers are conducted to ensure that all exterior and interior surfaces are completely sealed with materials compatible with class 1/10 Cleanroom construction standards. All visible surfaces are covered with high-pressure, white plastic laminate. Trim is constructed of clear, anodized aluminum. All interior duct surfaces are completely covered with plastic laminate, melamine laminate, clear anodized aluminum, or other suitable surface coverings compatible with class 1/10 Cleanroom construction standards. Doors are also made from clean, anodized aluminum and 1/4" tempered glass used at the entry and exit of the Air Shower. Heavy duty commercial door closers, door seals, and door sweeps are used to maintain the seal of the Cleanroom envelope. Adjustable air nozzles are constructed from white plastic. They are sized and spaced to provide on average 7,000 fpm air flow at the face of the nozzle. Return air registers are of white baked enamel steel grilles, built into the Air Shower wall system. Interior ceilings include an appropriate number of air nozzles and a fluorescent light, or, HEPA filters and lighting above a protective grille (on models with laminar flow ceilings). Also provided are predrilled and capped sprinkler penetrations.

The Filtration System is comprised of HEPA filters capable of removing 99.99% of dust particles to 0.3 microns in size. Filter access is from above unit, or as specified. Air Showers which are specified to include optional Constant Purge ceilings have fan powered HEPA filters mounted above a polystyrene eggcrate diffuser panel. The Constant Purge feature will add 6" to the standard Air Shower height. Replaceable pre-filters of 30% efficiency are used to maximize life of the absolute filters, and are accessible from the Air Shower interior, within return air grille(s).

The Air Shower Electrical System is comprised of a pre-wired electrical panel which contains the major electrical components, such as: rotary disconnect switch, transformers, fuses, motor starter, overload, terminal strips, ground bus, and programmable logic controller. Further included is a single-point connection of 208/220 volt/3 wire service or 460 volt/3 wire service which serves as the only source of power required by the buyer, as well as a paddle-wheel type high pressure blower, sized to provide 7,000 fpm velocity at the face of the air nozzles. A rotation indicator is permanently attached to the blower housing. All lighting is 115 volts, and all wiring methods comply with the National Electrical Code.

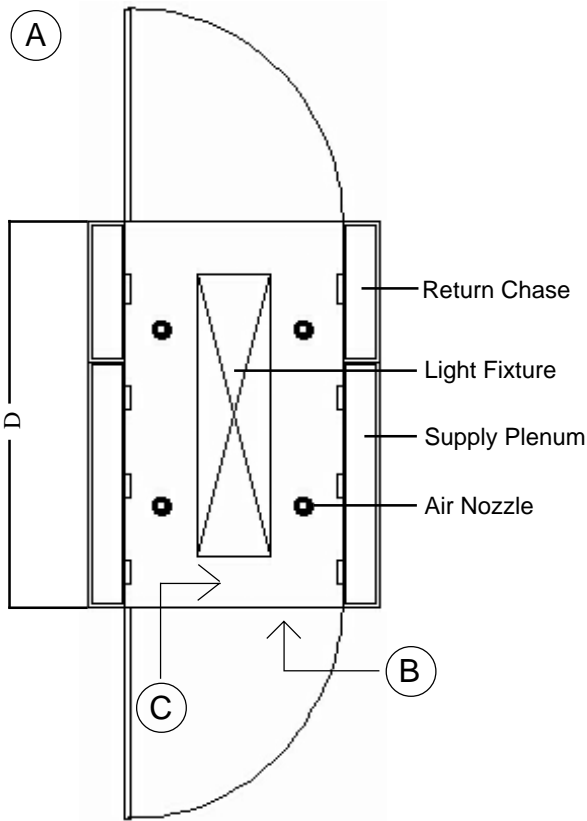
For the Control System, a Programmable Logic Controller (PLC) is used to control the sequence of operation of the Air Shower. An Emergency Off Button (EMO) located inside the Air Shower is mounted in a conspicuous location. Activating the switch causes the cycle to immediately end, and release all interlocks. Lighting is set to remain on. Door sensors are set at 24 volt DC magnetic reed switches, and door interlocks are 24 volt, located in the door jamb at the top of the entrance and exit ways. All locks are automatically set to release upon loss of power, or when the Emergency Off Button is pressed.

All our Air Showers are Inspected prior to shipping by factory quality assurance personnel. Units are set up square and plumb on a level surface in the factory test area, and any necessary adjustments to doors and door seals will be made to project satisfaction. Sound levels, velocity, vibration, cleanliness, trueness to size, and integrity of design are checked prior to disassembly and crating. After disassembly for shipment, all components are marked clearly for field installation. A floor plan, assembly instructions, and an electrical schematic are provided for each Air Shower. As always, our professional technical assistance is only a phone call away, before or after completion of any project.

Specifications are subject to change without notice.

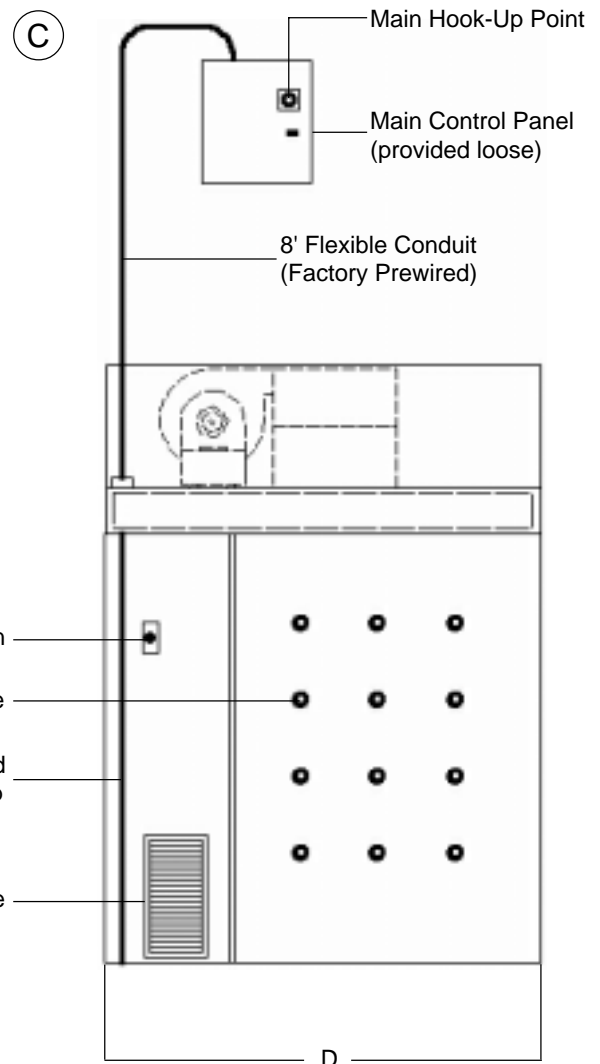
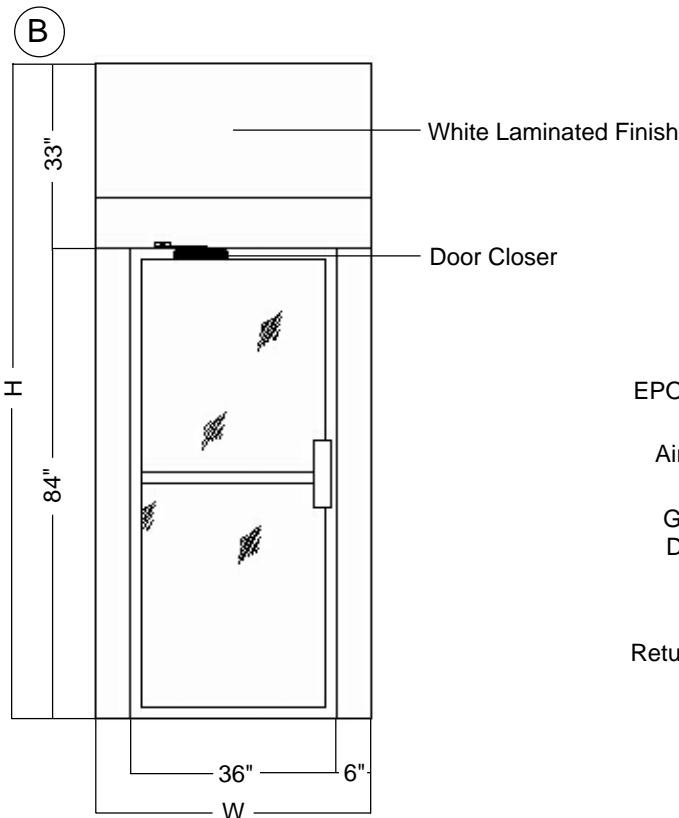
Air Shower Ordering Table

Size	Model #	Exterior Dimensions			Interior Dimensions			Fan Size	Fan Qty	Total CFM	Air Jets (Qty)	Air Jets (FPM)	Amps F.L.A. (230V)	Amps F.L.A. (460V)	Shipping Weight (Lbs.)
		(W)	(D)	(H)	(W)	(D)	(H)								
4' x 4'	AAS4848e	48"	48"	118"	36"	44"	84"	2 HP	1	750	20	6,000	8A	4A	1,000
	AAS4848s	48"	48"	118"	36"	44"	84"	3 HP	1	875	24	8,000	8.5A	4.25A	1,050
	AAS4848v	48"	48"	124"	36"	44"	84"	3 HP	1	875	20	8,000	9A	4.5A	1,100
4' x 5'	AAS4860e	48"	60"	118"	36"	56"	84"	3 HP	1	800	24	6,000	8.5A	4.25A	1,200
	AAS4860s	48"	60"	118"	36"	56"	84"	5 HP	1	1,500	44	8,000	14A	7A	1,300
	AAS4860v	48"	60"	124"	36"	56"	84"	5 HP	1	1,500	40	8,000	15A	7.5A	1,350
5' x 5'	AAS6060e	60"	60"	118"	48"	56"	84"	3 HP	1	800	24	6,000	8.5A	4.25A	1,500
	AAS6060s	60"	60"	118"	48"	56"	84"	5 HP	1	1,500	44	8,000	14A	7A	1,600
	AAS6060v	60"	60"	124"	48"	56"	84"	5 HP	1	1,500	40	8,000	15A	7.5A	1,650
4' x 6'	AAS4872e	48"	72"	118"	36"	68"	84"	3 HP	1	800	24	6,000	8.5A	4.25A	1,500
	AAS4872s	48"	72"	118"	36"	68"	84"	5 HP	1	1,500	44	8,000	14A	7A	1,600
	AAS4872v	48"	72"	124"	36"	68"	84"	5 HP	1	1,500	40	8,000	15A	7.5A	1,650
5' x 6'	AAS6072e	60"	72"	118"	48"	68"	84"	3 HP	1	800	24	6,000	8.5A	4.25A	1,600
	AAS6072s	60"	72"	118"	48"	68"	84"	5 HP	1	1,500	44	8,000	14A	7A	1,700
	AAS6072v	60"	72"	124"	48"	68"	84"	5 HP	1	1,500	40	8,000	15A	7.5A	1,750
6' x 6'	AAS7272e	72"	72"	118"	60"	68"	84"	3 HP	1	800	24	6,000	8.5A	4.25A	1,700
	AAS7272s	72"	72"	118"	60"	68"	84"	5 HP	1	1,600	44	8,000	14A	7A	1,800
	AAS7272v	72"	72"	124"	60"	68"	84"	5 HP	1	1,600	40	8,000	15A	7.5A	1,850
4' x 8'	AAS4896e	48"	96"	118"	36"	92"	84"	3 HP	1	800	24	6,000	8A	4A	1,900
	AAS4896s	48"	96"	118"	36"	92"	84"	3 HP	1	3,000	68	8,000	18A	9A	2,250
	AAS4896v	48"	96"	124"	36"	92"	84"	3 HP	1	3,000	60	8,000	20A	10A	2,350
4' x 10'	AAS48120e	48"	120"	118"	36"	116"	84"	3 HP	1	800	24	6,000	8A	4A	2,000
	AAS48120s	48"	120"	118"	36"	116"	84"	5 HP	1	3,000	88	8,000	28A	14A	2,350
	AAS48120v	48"	120"	124"	36"	116"	84"	5 HP	1	3,000	80	8,000	30A	15A	2,450
4' x 12'	AAS48144e	48"	144"	118"	36"	140"	84"	3 HP	1	1,600	48	6,000	16A	8A	2,500
	AAS48144s	48"	144"	118"	36"	140"	84"	5 HP	1	3,000	80	8,000	28A	14A	2,850
	AAS48144v	48"	144"	124"	36"	140"	84"	5 HP	1	3,000	72	8,000	30A	15A	2,950
4' x 15'	AAS48180e	48"	180"	118"	36"	176"	84"	3 HP	1	1,600	48	6,000	16A	8A	2,900
	AAS48180s	48"	180"	118"	36"	176"	84"	5 HP	1	4,500	132	8,000	42A	21A	3,450
	AAS48180v	48"	180"	124"	36"	176"	84"	5 HP	1	4,500	120	8,000	45A	22.5A	3,600
4' x 20'	AAS48240e	48"	240"	118"	36"	236"	84"	3 HP	1	1,600	96	6,000	32A	16A	4,000
	AAS48240s	48"	240"	118"	36"	236"	84"	5 HP	1	4,500	176	8,000	56A	28A	4,700
	AAS48240v	48"	240"	124"	36"	236"	84"	5 HP	1	4,500	160	8,000	60A	30A	4,900



Typical Air Shower Drawing

- (A) Plan View
- (B) Elevation 1
- (C) Elevation 2



Typical Configurations

