

Citizen

Animal Transfer Station



General description

Animal Transfer Station model ACS-5

Purpose

Citizen make Animal Transfer Stations, (also known as Animal Change Station or Animal Work Station) are basically designed to protect both, animal and lab personnel, from exposure to contaminants. Conventional design animal transfer stations were primarily offering protection to animals from exposure to surrounding atmosphere. However, it is equally important to protect the Animal House Personnel from any contamination caused due to animal handling. Animal transfer activity may generate high amount of allergens and animal residues. Continuous working on such activity may cause occupationally induced respiratory diseases to Animal Working Personnel, if the animal transfer stations / work stations are not designed properly. The latest design Animal Transfer Station / Work Station offered by Citizen assures protection to animal from exposure to surrounding atmosphere while offering security to animal worker also against contamination generated during animal transfer activity.

Construction and Components

Overall construction: The compact design animal change station is fabricated out of high quality steel finished with pure epoxy coating. All corners of the equipment are properly rounded and sharp edges are eliminated for safety of working personnel. The entire unit is mounted on castor wheels for easy movement. Two numbers free moving type and two are provided with brake pads. The unit is designed to work from both the sides with minimum obstacles and easy maneuverability.

- **Work Surface:** Work surface and other critical components are fabricated out of smooth finish, easily cleanable high grade stainless steel. The work surface is provided with depression and calibrated perforations on the periphery. The depression takes care of the spill overs if any and the calibrated perforation is provided to create an invisible curtain through the barrier air flow with required velocity.
- **Drive:** Both supply and exhaust chambers are provided with energy efficient AC / EC fans which are silent in operations and controlled by the programmable logical controller.
- **Controller:** Highly reliable Israel make PLC is provided with built in data logger to record all necessary functional data for a considerable period. PLC is loaded with smart software for reliable functioning of equipment and user friendly operations. Unit provides audio visual alarms in case any of the preset parameters go out of set limit.
- **Air Filtration:** Supply air chamber is provided with easily cleanable G4 / G5 grade pre-filter and H14 grade laminar flow filters. Exhaust air chamber is provided with washable media pre-filter (G4) and high efficiency HEPA filter. Integrity of HEPA filters are verified through DOP test to meet the classification of air cleanliness in line with ISO 14644-1 prior to dispatch of equipment.

Functioning

The Animal Transfer Station consists of laminar air flow chamber, clean work surface and the exhaust chamber. Supply air chamber extracts the room air through pre-filter installed on top of the unit and then passes the air through high efficiency HEPA filter (H14). Good amount of clean air flows through H14 grade filter in laminar pattern to maintain contamination free environment in work area and protect the animals under work / transfer.

Smooth finish, easily cleanable stainless steel work surface mounted on return air chamber is provided with calibrated perforations on the periphery. Fan of exhaust chamber draws the air through said perforations. The higher velocity air through laminar filter helps protecting the animals. The air suction by exhaust fan through the perforation at periphery of work surface creates a barrier around work surface by creating required velocity of air. The said barrier airflow is enough to protect the personnel working on the animal from solid contamination and allergens generated while transferring the animals. The exhaust air is then passed through pre-filter and HEPA filter to arrest the solid contamination likely to be mixed with clean air while passing through work surface.

The functioning of both laminar air flow fan and the exhaust fan are controlled by PLC with smartly designed software to fulfill the cause of animal transfer station. At initial start, for few minutes, supply air fan runs at higher speed to blow off air borne particles within the working area. After initial run, the fan comes to normal speed to maintain laminar air flow.

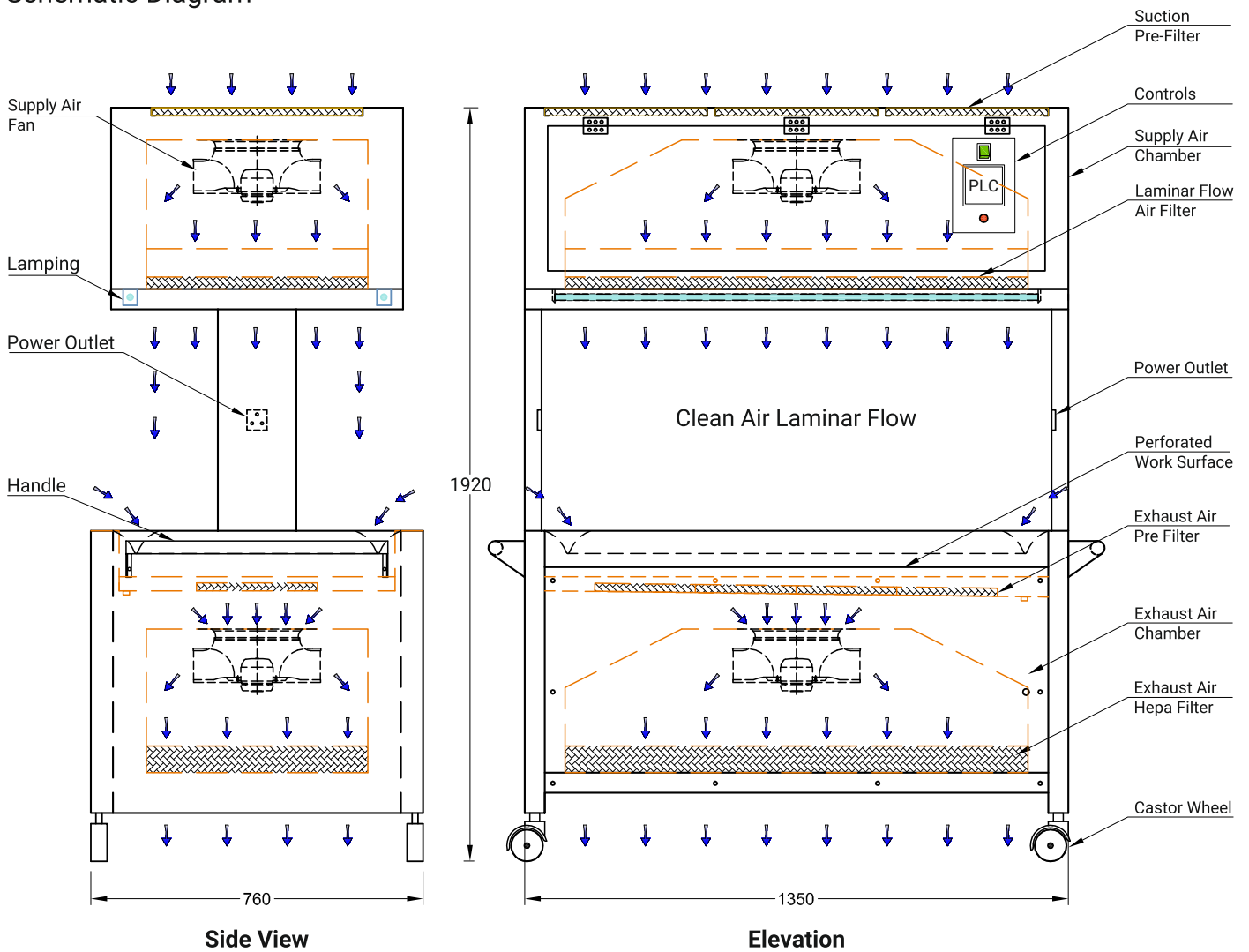
The work station is safe to use once the fan comes to normal speed. Necessary message during these operations are displayed on the screen of the control unit. High quality sensors are used to provide necessary information to the PLC which helps maintaining the air flow while gradual loading of filters over a period of operations. The operations can be validated time to time and calibrated easily if required for continuously reliable operations. The latest design Citizen make transfer station is the perfect solution for SPF clean animal facility with Good Laboratory Practices.

Flexibility in design

With long experience, design expertise and state-of-the-art in-house manufacturing facility, Citizen can offer constructional and functional features as per customers' requirement to a considerable extent. The specifications and features furnished in this catalogue are the general specifications and may not be considered as the limitations of the unit. The optional features such as total stainless steel construction, special construction fan motors, provision for height adjustment. UV lamping, barrier screens on two sides, barrier screen on front etc. can be offered on demand. The specification sheet attached with the product catalog may be considered as general information and customer may please feel free to demand in case additional details / clarifications / features are required.

Animal Cage Change Station - ACS 5

Schematic Diagram



General Specifications – Animal Transfer Station (Model : ACS-5)

Overall Dimensions	: L 1350(+165) x W 760 x H 1920 mm
Overall Construction	: Steel body finished with epoxy coating
Work Surface and Arm Rest	: Stainless Steel (304)
Air Velocity at outlet of HEPA Filter	: Variable, 0.3 to 0.4 mps
Approx. Weight	: 200 Kgs (±10 Kgs. depending upon features)
Supply air Pre-filters	: 520 x 380 x 20 mm – 3 nos.
Supply air HEPA filter	: 1150 x 550 x 66 mm (H14) with guard screen
Exhaust air Pre-filter	: 1000 x 300 x 20 mm – 1 no. with guard screen
Exhaust air HEPA filter	: 1150 x 550 x 66 mm (H14)
Power Supply	: 220 V Single Ph. 50 Hz. AC (Unit provided with 3 to 5 mtr. Power cord with 5 / 15 Amp. 3 pin plug)
Controls	: Programmable logical controller with data logger with HMI and data logger.
Castor wheels	: 125 dia, 4 nos.
Standard accessories	: - Power cord with 16 Amp. 3 pin plug - 2 nos. - 5 Amp. 3 pin power outlet
Optional specifications / features	: - Complete unit in SS construction - Additional barrier screens (in polycarbonate construction) - Electro hydraulic mechanism to lift the unit height up to 300 mm for person specific need - Polycarbonate cover panel on left and right sides
Additional tests offered on request	: - Noise level test - Air flow pattern test - Electrical parameters - Light intensity on work surface - Overall functioning and alarm testing

*Note: Specifications and dimensions are subject to change without notice.



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