

**Microzone Corporation Letter Opening Station  
Technical Specification**

**PART 1 GENERAL**

**PART 1.01 GENERAL INFORMATION**

This Section specifies all requirements necessary to furnish and install Letter Opening Station including, but not limited to the following:

1. This specification covers the requirements for Letter Opening Station with a negative pressure flow with a fully exhausted work environment.
2. Nominal 2 and 4 foot widths are covered by this specification.
3. This specification sets the intent for quality, performance and appearance.
4. Supply and install as scheduled in laboratory schedule and drawings.
5. Coordinate installation with other trades to avoid onsite conflicts.
6. Reference related sections within the specification document in conjunction with the following specifications to insure total requirements for the referenced Letter Opening Stations are provided.

**1.02 QUALITY ASSURANCE**

1. The manufacturer shall maintain a testing facility at their place of business for the performance testing of the work stations. Both the supply of the work stations and installation shall be in conformance to good construction practice and approved by the owner/user. The test facility as well as the manufacturing facility must be available for an owner/user inspection and its quality control procedures. All work stations to be wired for 115 volts, 60 Hz

**1.03 REFERENCES**

1. The Letter Opening Station shall conform to the current regulations and federal standards.

**1.04 SUBMITTALS**

1. Letter Opening Station specification sheets and product manuals shall be submitted by the manufacturer upon request. The supplier shall submit shop drawings when necessary for clarification.
2. Provide a detailed copy of the test results conducted prior to shipping to ensure compliance shall be shipped with each cabinet.

**1.05 DELIVERY AND STORAGE**

1. Letter Opening Station shall be delivered in unopened crated packages adequately protected from damage during shipment.
2. Exercise extreme care in handling all Letter Opening Stations to prevent any damage.
3. Store materials within the building in the space designated for storage. Store materials in such manner as to prevent any damage or intrusion of foreign matter. Any damaged materials must be noted and scheduled with the job site installation foreman for removal and replacement from the job-site prior to installation.

**1.06 WARRANTY**

1. Manufacturer's warranty against defects in material or workmanship for 1 year from date of shipping, shall include replacement of parts (except prefilters, HEPA or ULPA filters and lamps) and labor. The cabinet supplier shall not be responsible for or liable for any modifications, alterations, misapplication or repairs made to the products in the field after product final installation.

***"Simply Building Better Environments For Advanced Technology & Life Sciences"***

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**PART 2 - PRODUCTS**

**2.01 PRODUCT NAME**

Letter Opening Station, model number as described below:  
2 Foot Model: LOS-2-2-T, 4 Foot Model: LOS-2-4-T

**2.02 ACCEPTABLE MANUFACTURER**

Microzone Corporation,  
Laboratory Equipment Group,  
86 Harry Douglas Drive,  
Ottawa, Ontario, Canada, K2S 2C7  
Phone: 613-831-8318, or Toll Free: 1-877-252-7710  
Fax: 613-831-8321, Email: [sales@microzone.com](mailto:sales@microzone.com)

**2.03 MATERIALS OF CONSTRUCTION**

1. Interior construction shall include shell constructed from factory assembled heavy duty all modular anodized square aluminum with integral corner inserts and pre-drilled gusset support straps. The interior liner shall be constructed from stainless steel pre-finished panels including the working surface, with clear viewing acrylic window panels on each end.
2. Exterior panels shall be constructed from white/clear pre-finished panels without exposed bolts or nuts.
3. The supply and exhaust plenum shall be integral and constructed from aluminum with front service access hinged drop down panel operation. The exhaust shall terminate at the bottom and discharge back into the room.
4. Air discharge from the Letter Opening Station shall be via a multi stage filtration featuring: 40% minimum efficient primary in line pre-filter, with secondary in line Clean-Ceil FAN/HEPA filters with a minimum of 99.99% efficient on all particles 0.3µm. HEPA filters shall be industry-standard size metal-free separatorless type. These shall be integral to the Letter Opening Station and terminate in a standard power cord.  
A optional Carbon filter pack designed to remove odors, light gases, particulates and gaseous Pollutants shall also be available. These shall be integral to the enclosure.
5. The work surface/ air intake foil shall be constructed from stainless steel and be fully removable for cleaning.
6. The interior integral bottom of module shall incorporate a surface mounted switched duplex electrical outlet and remote mounted filtration speed controller.
7. A airflow alarm gauge shall monitor system exhaust airflow. This system reports the static condition of the unit's exhaust airflow providing both visual and audible alarms signaling a problem with the exhaust fan or increased static pressure.
8. All services factory plumbed and wired for single point field connection.

**2.04 FABRICATION**

1. Overall exterior dimensional information of Letter Opening Station is as described in the table.  
Nominal Dimensions: 2 ft. Model: 24" w x 24" d x 30" h, 4 ft. Model: 50" w x 26" d x 72" h  
View laboratory schedule, and drawings for model type.
2. The exterior shell shall be constructed from factory assembled heavy duty all modular anodized square aluminum with integral corner inserts with continuous seam sealed construction complete with a removable front access panel with sufficient structural reinforcement to provide a rigid, stable unit.
3. The interior liner shall be constructed from stainless steel pre-finished panels including the removable work surface and airfoils, with clear viewing acrylic window panels on each end.

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4. Provide a full width containment plenum with removable pre-filtration media and integral hopper.
5. Provide full width integral exhaust plenum from the bottom, exhausting the work volume and the secondary containment plenum. The air intake airflow slots, located in front and rear of the airfoils work surface, shall draw air directly into the cabinet through the secondary containment plenum directly to exhaust plenum duct discharge point.
6. Cabinet assembly shall be constructed such that all plenums are negative pressure plenums. The Letter Opening Station is designed such that all major service operations can be performed from the front of the cabinet.
7. All major electronic components (speed control, switches, circuit breakers) shall be housed in a removable module for service or testing, located in the front valence of the cabinet.
8. The cabinet shall be pre-wired terminating in an electrical service outlet located on the rear base section ready for connection to a suitable 115 volt service.

**PART 3 - EXECUTION**

**3.01 INSPECTION**

1. Carefully check the contents of the carton for damage that might have occurred in transit.

**3.02 PREPERATION**

1. Verify equipment rough in before proceeding with work.
2. Coordinate with other trades for the proper and correct installation of plumbing and electrical rough in and for rough opening dimensions required for the installation of the hood.

**3.03 INSTALLATION**

1. Install according to manufacturer's instructions.
2. Install according to standards required by authority having jurisdiction.
3. Install equipment plumb, square and straight with no distortion and securely anchor as required.
4. Sequence installation to ensure utility connections are achieved in an orderly and expeditious manner.
5. Touch up minor damaged surfaces caused by installation. Replace damaged components as directed by Architect.

**3.04 FIELD QUALITY CONTROL**

1. A qualified independent certifier should certify the cabinet before use. The certifier should perform tests as recommended in the manual.

**3.05 CLEANING**

1. Clean equipment surfaces as recommended by the manufacturer, rendering all work in a new and unused appearance.
2. Clean adjacent construction and surfaces, which may have been soiled in the course of installation of work in this section.

**3.06 PROTECTION**

1. Provide all necessary protective measures to prevent exposure of equipment and surfaces from exposure to other construction activity.
2. Advise contractor of procedures and precautions for protection of material from damage by work of other trades.

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