

# **MICROZONE CORPORATION SERIES CR3W CLEANROOM WALL SYSTEM SECTION 13000**

## **SECTION 1 GENERAL**

### **1.01 GENERAL INFORMATION**

This Section specifies all requirements necessary to furnish and install a complete Modular Cleanroom Wall System including, but not limited to the following:

1. All modular 2" thick Cleanroom wall system, completely demountable, non-progressive, as indicated on the drawings, including all installation hardware.
2. Cleanroom wall panel including selected core material including panel finish.
3. Extrusions, fasteners, trim finishing coves and angles necessary to maintain wall system structural integrity and airtight installation.
4. Prefabricated door modules and product pass thru's with hardware installed as scheduled in section 08700, door hardware, and drawing door schedule.
5. Window panels with glazing as scheduled in section 08800, glazing.
6. Coordinate installation with other trades to avoid onsite conflicts.

### **1.02 RELATED SECTIONS**

The Sections listed below shall be used in conjunction with the following specifications and related contract documents to establish the total requirements for the referenced Cleanroom wall system.

1. Section 08700 - Door Hardware
2. Section 08700 - Door and Pass Through Schedule
3. Section 08800 - Glazing
4. Section 10000 - Cleanroom Flooring
5. Section 13000 - Cleanroom Modular Ceiling System

### **1.03 SUBMITTALS**

1. Manufacturer's literature, specifications, details, and installation instructions for each cleanroom wall component proposed for use, including technical data as may be required to show compliance with the specifications.
2. One sample of wall system components with specified finish, and connectors. Include any other components as necessary to illustrate a completed wall assembly.

### **1.04 QUALITY ASSURANCE**

1. Award the work to a firm who has a minimum of 5 years experience in the manufacturing and installation of Cleanroom wall system components.

### **1.05 DELIVERY, STORAGE, AND HANDLING**

1. Deliver materials in unopened crated packages.
2. Exercise extreme care in handling all cleanroom wall system components to prevent any damage.
3. Store materials within the building in the space designated for cleanroom component 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**

Modular Cleanroom Wall Systems shall be warranted against defects and workmanship for a period of one (1) year from date of original shipment. Modular Cleanroom Wall System 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 acceptance from owner.

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

Microzone Corporation, 86 Harry Douglas Drive, Ottawa, Ontario, Canada K2S 2C7

Telephone: (613) 831-8318 Toll Free: (877) 252-7710 Fax: (613) 831-8321

Email: [sales@microzone.com](mailto:sales@microzone.com) Web Site: [www.microzone.com](http://www.microzone.com)

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## 1.07 TECHNICAL SERVICES

Modular Cleanroom Wall Supplier must offer technical service support from both the factory and field representative for all services regarding layout, design and product selection, as well as suggested specifications.

## SECTION 2 PRODUCTS

### 2.01 PRODUCT NAME

Cleanroom Modular Wall System –Series CR3W

### 2.02 MANUFACTURER

Microzone Corporation - **Cleanroom Services 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, E-mail:sales@microzone.com

### 2.03 PRODUCT DESCRIPTION

1. General Description: The Microzone Series CR3W Modular Cleanroom Wall System is designed to provide a clean and reliable wall system for either a new or existing cleanroom, ensuring quality and performance geared to the expectations for which the cleanroom is being designed. The wall panels shall be installed providing a smooth, flush wall finish by using a pre-finished (coil coating process) sheet construction with a selected surface and core finish as shown on layout drawings. All panels are then coated and sealed with 55 microns of protection film. All components are fabricated with non-out gassing materials and are rated to a minimum noise attenuation of 30dB at 1000 Hz. All wall to wall and wall to ceiling connections shall be covered with curved aluminum extrusions, with all wall openings and junctions finished and sealed.  
The Microzone Series CR3W Modular Cleanroom Wall System is designed for easy removal of wall panels without disturbing adjacent panels or ceiling (non-progressive) minimizing contamination possibilities to the cleanroom environment.  
The cleanroom wall system design shall require no cutting or drilling in the cleanroom during assembly. The wall system shall have the capability to be finished flush on both sides and minimize the need for field cutting. Mitering components will not be allowed.  
The cleanroom wall support framing components shall be an integral aluminum extrusion with anodized finish. The attachment and stud shall fasten together tightly via compression creating a double sealed joint connection and secure alignment of panels. Integral wiring or service chases shall be available in 8" panels and shall permit the removal and installation of an individual wall panel without disturbing adjacent wall panels. Wiring chases shall permit the installation of electrical service vertically and accept electrical boxes. A removable cover plate shall allow access to the service chase without disturbing the structural integrity of the system.  
Materials and connections shall be manufacturer's standard, capable of assembly with out the use of any special tooling.
2. Support/attachment mechanism: Integral support aluminum strut extrusion shall be anodized, with a clear finish and supplied on all four sides of the panel for easy attachment to adjustable or fixed floor track, ceiling support track, and wall to wall attachment systems. (consult drawing schedule for detail selections)
3. Cleanroom wall panel/core construction options: All cleanroom wall panel systems shall be constructed from one or a combination of the types listed below. Refer to system schedule on drawings for panel selection.  
Aluminum panel with honeycomb core – Aluminum panels shall be laminated to both sides of a paper or aluminum honeycomb core.  
Aluminum panel with polystyrene core – Aluminum panels shall be laminated to both sides of a polystyrene core.

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4. Additional panel constructions available - Consult factory for specifications
5. Panel Thickness: The total panel and support/attachment mechanism shall not exceed 2" total thickness.
6. Standard manufacturer's panel color is white.
7. Modular Cleanroom Wall System shall incorporate an integral flush two sides glass panel constructed from same panel thickness as walls complete with an all sealed 1/4" tempered safety glass panel. (consult drawing schedule for location and size)
8. Modular Cleanroom Wall System shall incorporate return air grilles. Provide either integral return air grilles to fit wall system manufacturer's standard installation details, or a raised post stand off secondary air return panel. (consult drawing schedule for location and type)

### **SECTION 3 EXECUTION**

#### **3.01 INSTALLATION**

Final installation of Cleanroom Wall System components shall assemble into a rigid structure with tight straight-line joints. Completed installation shall be free of exposed bolts, nuts, rivets, and fasteners within the cleanroom area and shall interface with all mechanical and electrical work in a clearly preplanned modular installation.

#### **3.02 CONDITIONS OF SURFACES**

Examine all wall system surfaces and adjoining construction conditions under which work is to be installed. Do not proceed with the work until the proper Cleanroom site protocol conditions have been provided.

#### **3.03 MATERIAL INVENTORY**

Inspect all materials upon arrival to job-site to ensure correct quantity, finishes, and quality of product. Report, in writing, any conditions to the materials that appear to have failed in general durability or any other form of apparent deterioration.

#### **3.04 SITE ASSEMBLY**

1. Verify dimensions of supporting structure by field measurements so that cleanroom wall will be accurately designed, fabricated, and fitted to the structure.
2. Coordinate cleanroom wall work with the work of related sections and provide items to be placed during installation of other work at the proper time to avoid delays in the work.
3. Assemble all component parts of the cleanroom wall in accordance with the manufacturer's written instructions and recommendations.
4. Assemble all component parts within the factory recommended tolerances.
5. Assemble all trim component parts of the cleanroom wall during erection only with the approval of the manufacturer in accordance with their recommendations. All cutting of trim to be done outside the cleanroom area.
6. Do not assemble members which are observed to be warped, bowed, deformed or otherwise damaged or defaced to such as to impair strength or appearance. Remove and replace members damaged in the process of site assembly.
7. Set units level, plumb and true to line with uniform joints.

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**3.05 CLEANING**

1. Provide cleaning methods required for each component part as recommended by the respective manufacturers.
2. Cleaning methods shall be carefully selected, applied and maintained so that finishes will not become uneven or otherwise impaired.
3. The cleanroom project protocol requires that special attention to minimizing potential contamination of the fully developed cleanroom environment. Daily cleanup and vacuuming of the work area is essential to an ongoing control of contaminants, especially as the cleanroom fit-up progresses.

**3.06 PROTECTION**

1. Protect the cleanroom wall system throughout the construction period in a clean and properly protected condition so that it will be without any indication of use or damage at the time of substantial completion.
2. All work must be protected during shipment, storage, assembly and construction so as to avoid development of nonconformity of appearance or other deleterious effects in the work.
3. Remove protection when no longer required.



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