

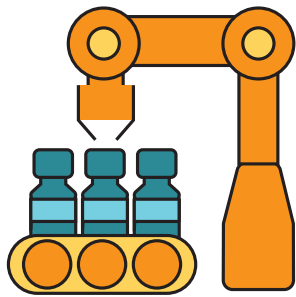


Ernest D. Menold, Inc.

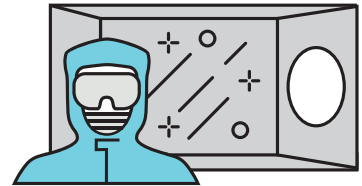
Stainless Steel Products Catalog



Pharmaceutical



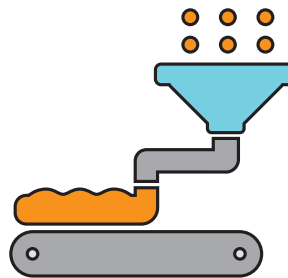
Manufacturing



Clean Rooms



Hospitals



Food Processing



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About Us

Our company, Ernest D. Menold, Inc., bears the name of its founder, a skilled sheet metal worker who started his own company in 1947. With a fabricating facility about the size of a one-car garage, we started by serving industrial and pharmaceutical companies in the Philadelphia area. From the very beginning we developed expertise in the fabrication and installation of sophisticated HVAC systems and specialty stainless steel fabrications for pharmaceutical companies, and a variety of other special services for the industrial and commercial market. We are especially proud of the fact that several of our earliest customers are still steady customers today.

Over the years our size and capabilities have increased, but our focus remains the same: Customer Service. Our mission is to provide quality, timely, and efficient construction services to our customers. Working directly with lab owners within pharmaceuticals, General Contractors and Construction Managers, Ernest D. Menold, Inc. has the experience and skills to design, supply, install and service the highest quality stainless steel lab casework, furniture, and equipment.



An Ernest D. Menold, Inc. employee inspecting our installed casework in the 1980s.



Ernest D. Menold, Inc. installing a platform around bioreactors in 2021.



Safety



The pharmaceutical industry is in the business of improving health and safety, so naturally safety onsite at pharmaceutical facilities is of the utmost importance. As a company, we carry a 'safety mindset' as a Company Value we bring to our customers. We are well versed in Contractor Safety Programs onsite at Pharmaceuticals, managing safety performance databases, filling out Job Safety Analyses in order to perform work, pinpointing risk potentials, and recommending plans of action that are consistent with jobsite stipulations.

Our Experience Modification Rate (EMR) allows us to perform work onsite at even the most strict pharmaceutical facilities. We are also members of most contractor information management platforms, like ISNetworld, Avetta, Highwire, and Veriforce.



Custom Design

Tailored to Your Application

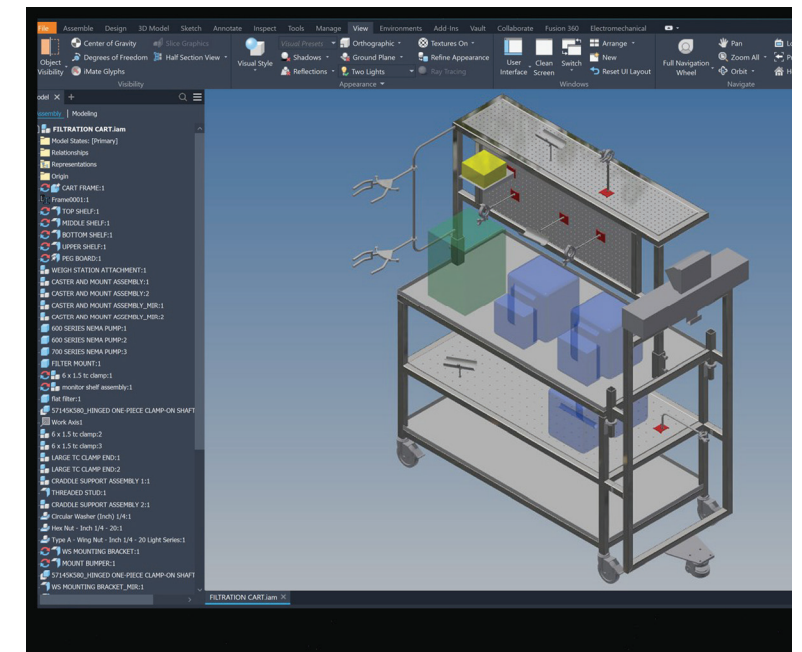
Everything in this catalog is customizable by size and type of stainless steel (304, 316, 316L). Applications include pharmaceutical manufacturing, food processing, health care, agricultural products and services, clean rooms, operating rooms, animal facilities, autopsy areas, and radioactive processes that feature high use of water wash-down to eliminate contamination and maintain excellent cleanliness. It is important to note that every industry has its own requirements when it comes to lab furniture. Lab furniture in a high school chemistry lab is much different than a pharmaceutical clean room. Do not go shopping for second-rate lab furniture when your application does not allow for it.

Our design team can assist in laying out a room for lab furniture and equipment that meets your process, people, and product requirements. We can 3D scan existing spaces, and will produce 3D Shop Drawings that clearly show all the components of your product.



Designing for End-Use

What environment is this application or project in? According to Class A, B, C, D within a clean space environments, we can look for cost saving opportunities depending on the use of the space. We are familiar with labs that have sanitizing, sterilization, and clean room requirements. Our design team will value engineer design applications that are appropriate to their end-use.



We utilize Autodesk Inventor to model our products and submit to our Shop for fabrication.



Ernest D. Menold, Inc. employees installing an exhaust system on roof.



Ernest D. Menold, Inc. employees installing an exhaust system on roof.



Materials

Stainless Steel is durable, long-lasting, and easily sanitized due to its non-porous qualities. It is resistant to heat and corrosion, and also resistant to mold, fungi and bacteria.

Types of Stainless Steel Use

Type 304 stainless steel is typically used in ‘non contact applications’ within sterile environments. It is commonly used in parts washing applications because of its high resistance to chemical corrosion. It has solid performance or more modest cost.

Type 316 and 316L (‘L’ means has low amount of carbons) is used in all ‘product contact applications’, equipment that has direct contact with pharmaceutical products, like water systems tanks, pipelines. Types 316 and 316L are more resistant than 304 against acid and base attacks. It contains more nickel and molybdenum than grade 304 does, which helps to enhance the metal’s resistance to pitting corrosion from exposure to chlorides (such as salt).

Corrosion Prevention

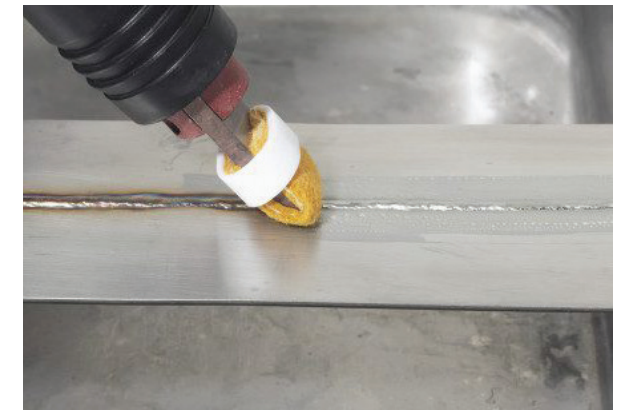
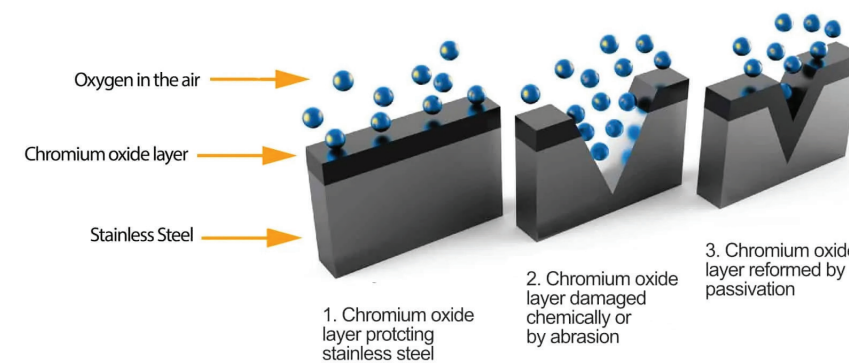
Corrosion is the brown discoloration, “tea staining”, or “rouge” of stainless steel. Corrosion often happens in corners, crevices, intermittent welds, as these trap water and other contaminants. In our experience, we see some lab applications use galvanized fasteners on stainless steel. The zinc in the galvanized steel reacts with the stainless and causes corrosion. All our products, fasteners, and accessories are stainless steel. Corrosion can be further prevented with acid passivation or electro polishing.



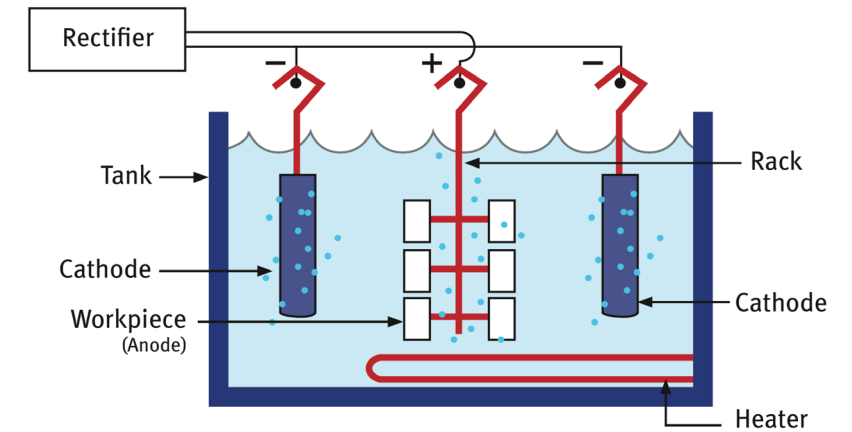
Post- Fabrication Treatments

Corrosion can be further prevented after fabrication with acid passivation or electro polishing our stainless steel products.

Passivation produces a contaminant-free finish with enhanced corrosion resistance. It is primarily used to remove free iron and other surface contaminants. Passivation does not remove heat tint and/ or oxide scales. It enhances the protective oxide layer on the metal, which prevents corrosion or rusting. It cleans without brightening or altering the appearance of the metal. Passivation is a gentler treatment than electropolishing, as it does not dissolve the outer layer of the metal. It removes manufacturing related contaminants.



Electropolishing is the process of soaking our stainless steel applications in a temperature-controlled electrolyte bath while and electric current is applied. It uses an electrical current inside an acid bath to remove microscopic surface layers of material to achieve a smooth finish. It is excellent for finishing parts with complex geometries.





Product Pages

To our previous point about custom design according to your application, please keep in mind all these products can be customized by material, dimensions, post-fabrication treatments, and even accessories, such as wheels, handles, drawer sleeves, stenciling, etc.





Products

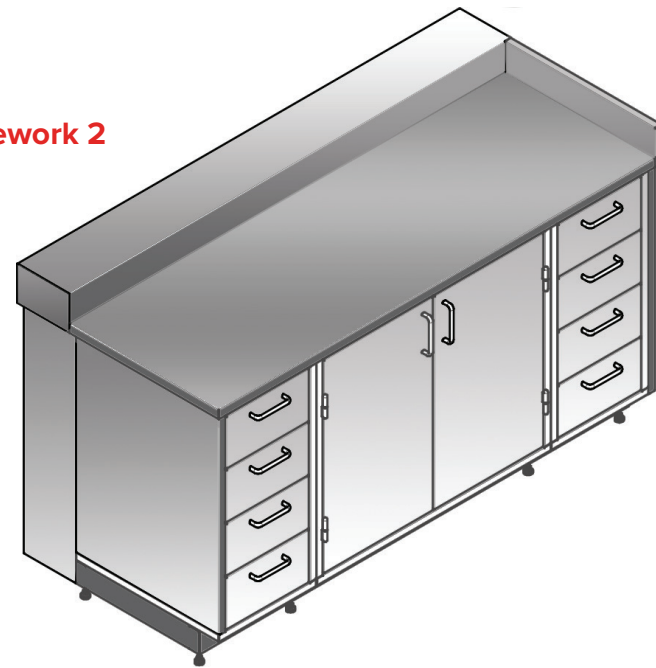
Casework

Base Cabinets are the most common casework pieces in labs, providing hygienic storage space where avoiding contamination is essential. Customized to your space, all our base cabinets are fully welded, with sliding drawers with a capacity up to 500 pounds for storage of heavy equipment.

Casework 1



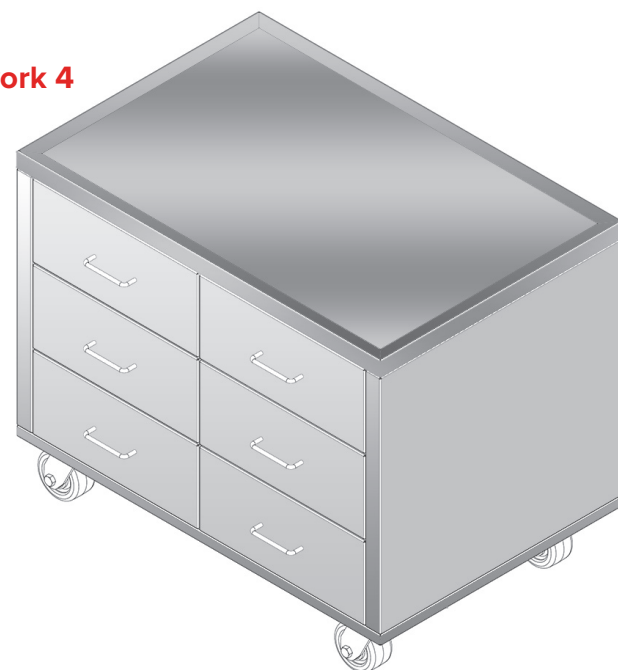
Casework 2



Casework 3



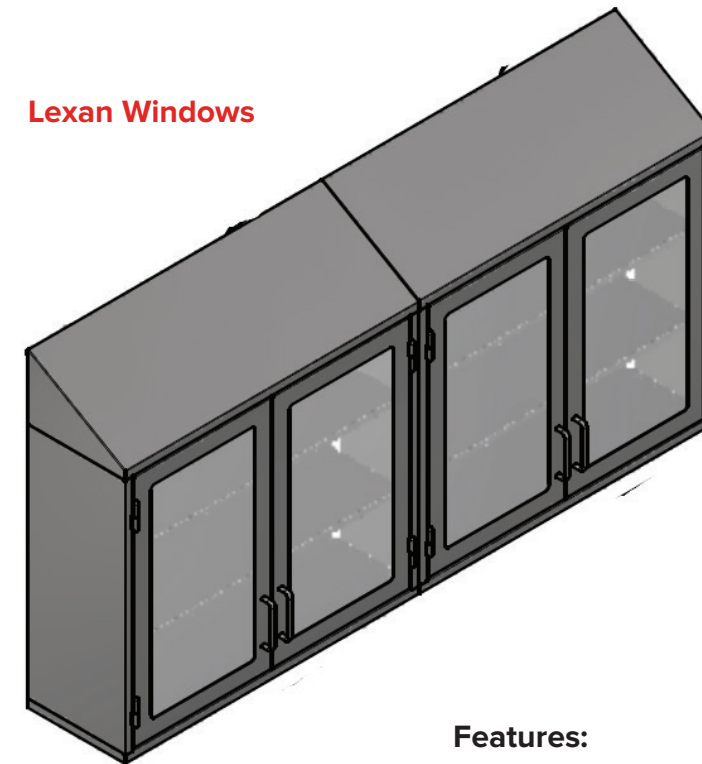
Casework 4



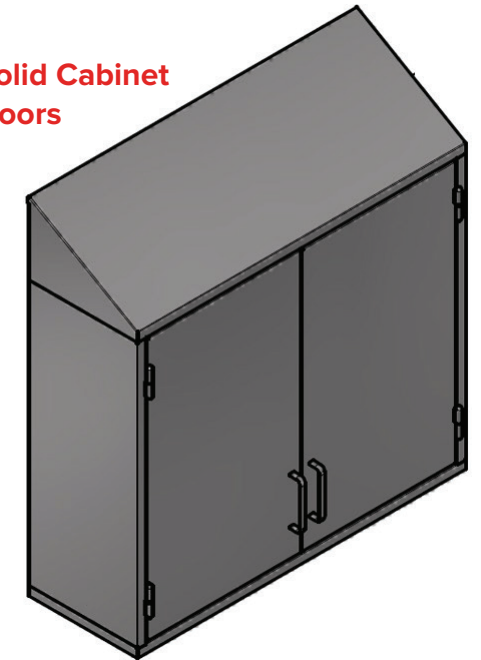
Wall Cabinets

Wall Cabinets provide accessible storage within arm's reach, while also maximizing space. We offer a variety of door options including lexan, glass, or solid doors.

Lexan Windows



Solid Cabinet Doors



Features:

- Magnetic door catches

Options:

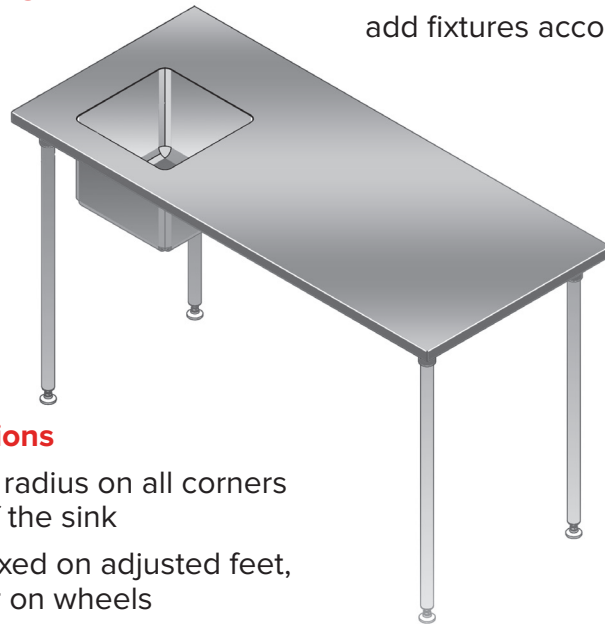
- Lexan, glass, or solid cabinet doors
- Type of Handles
- Sloped top or flat
- Adjustable shelves



Sinks

Sink + Insinks are useful when in a production area run requires nearby plumbing or a washdown area. We can fabricate sinks into workstation tables, or even make them into mobile carts. Our sinks are welded solid to their application. Under cabinet shelving can be added, with either an open or enclosed bottom. Our Design team can take into account any existing plumbing, and add fixtures accordingly.

Washdown Table with Sink



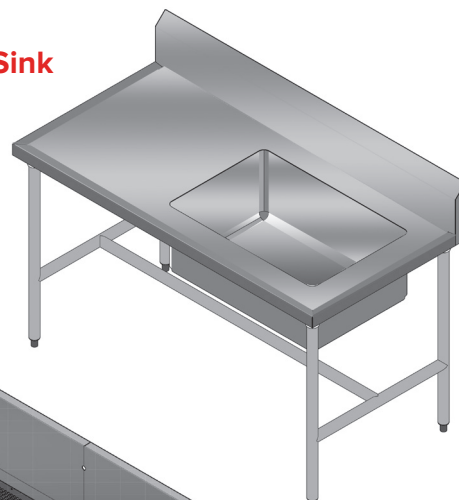
Options

- 1" radius on all corners of the sink
- Fixed on adjusted feet, or on wheels
- Magnetic door catches
- Enclosed or open bottom
- Exhaust Grilles on backsplash

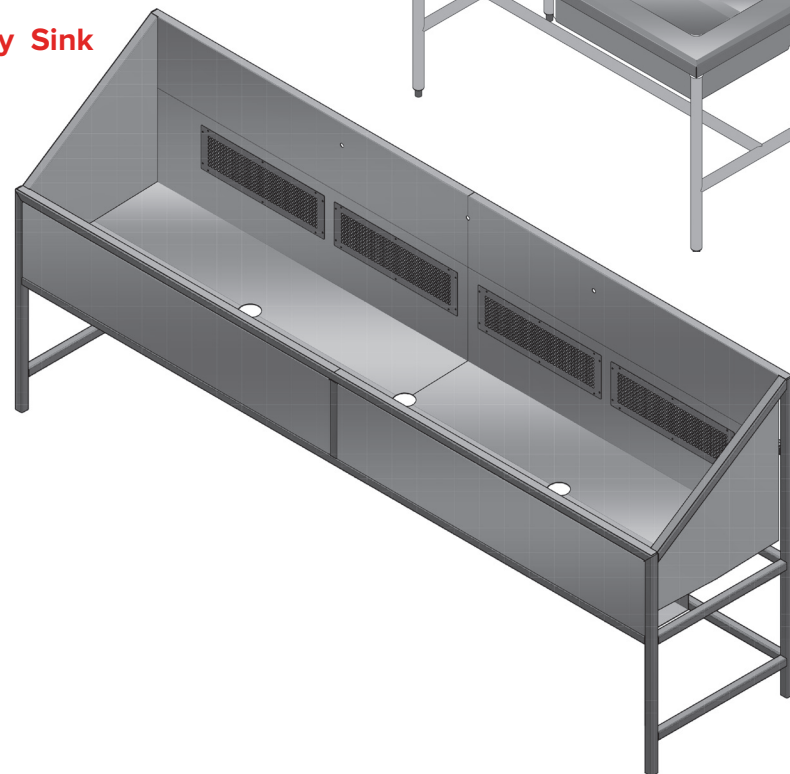
Double Bowl Sink



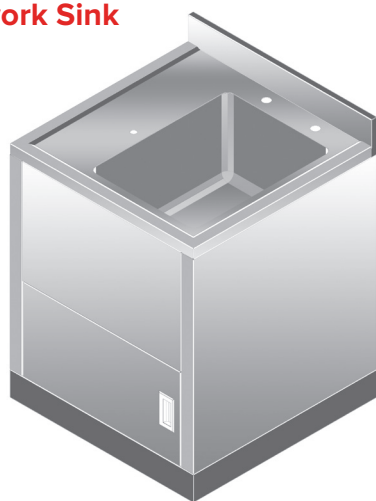
Table Sink



Carboy Sink



Casework Sink



Carts

Our carts give cleanroom operations the ability to transfer materials through sterile areas while reducing the possibility of particulate and microbial cross-contamination.

Rolling Cart

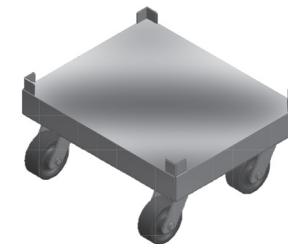


Simple Rolling Carts are an affordable option when a large weight capacity is not needed.

Enclosed Carts with drawers or cabinets are a good option for mobile storage, can carry large weight capacities, and the top can serve as a work area. They can ensure effective material and product transfer between clean areas and process stations. The interior can be customized to secure any type of product with shelving or custom solutions.

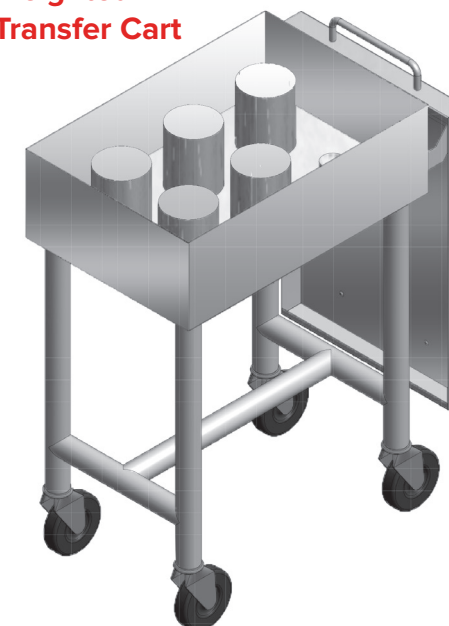
Scale Carts allow for quick and easy measuring of input and output within production environments. Bring the weighing process into your in-line production area with mobile scale carts.

Calibration Cart



Calibration Weight Box Carts are ideal for transport and storage of high capacity calibration weights and weight sets in clean room environments. Calibration carts can be waist-height or even flatbed style with handles. We can provide custom PVC inserts for your specific storage needs.

Weighted Transfer Cart



Flatbed Weighted Transfer Cart



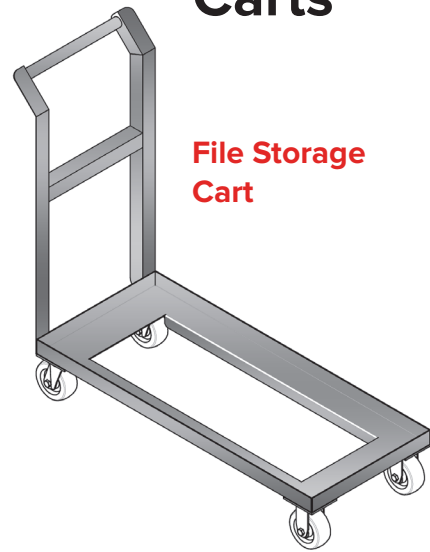
Utility Cart





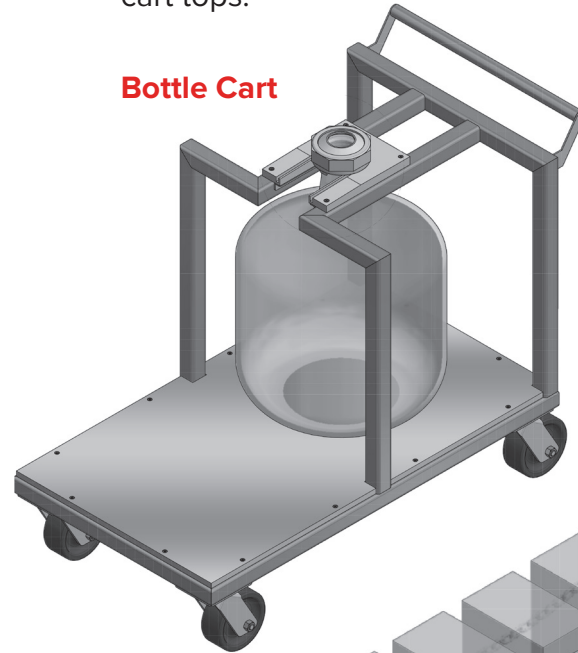
Carts

Transfer Carts are a highly customizable solution for moving organize, store, and transport tools, materials, supplies, parts, and other items for sterile environments. They are a cost-effective substitute to a powdered transfer cart. We can design removable handles and cart tops.



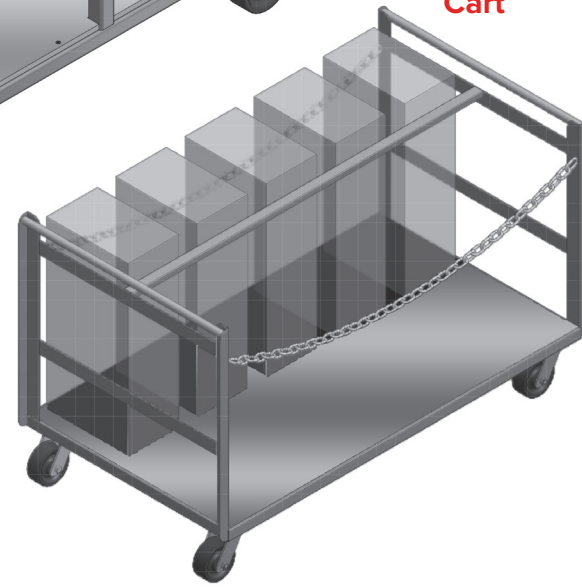
File Storage Cart

Bottle Cart

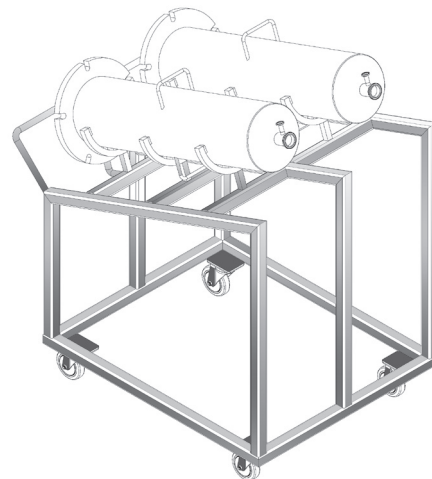


Bag Transfer Cart

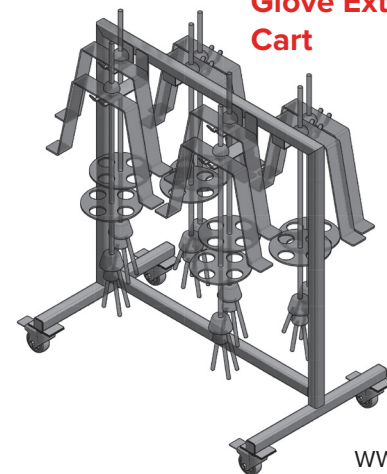
Cell Transfer Cart



Filter Cart



Glove Extender Cart

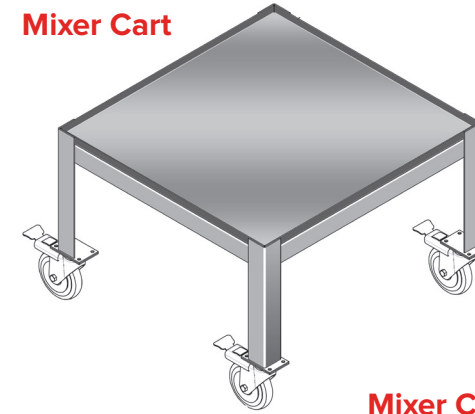


Carts

Mixer Carts are used to transfer any mixing, blending, drying and dispersion equipment. Our applications are designed to your specific processing needs.

Drum & Tank Dollies can handle standard sized or even custom sized drums. Depending on the application, we can make a stand for easier access. Our dollies are fully welded and outfitted with pharmaceutical grade castors. These dollies can be outfitted with a fixed or removeable handles, or no handles.

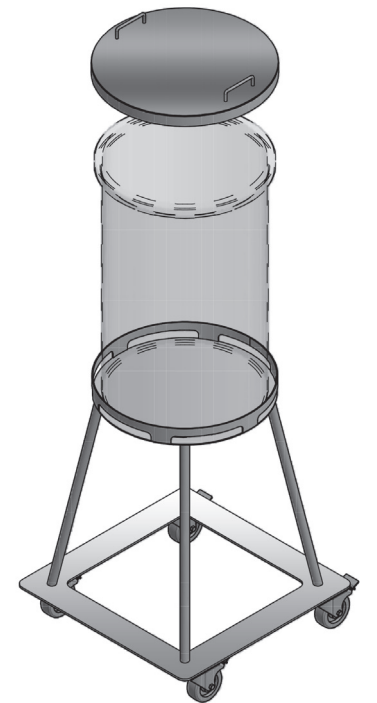
Mixer Cart



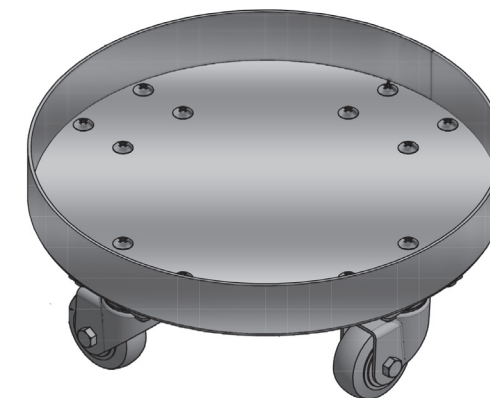
Mixer Cart



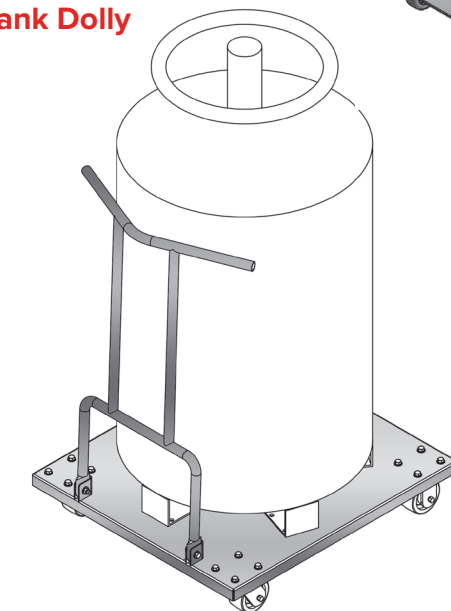
Drum Dolly



Drum Dolly



Tank Dolly





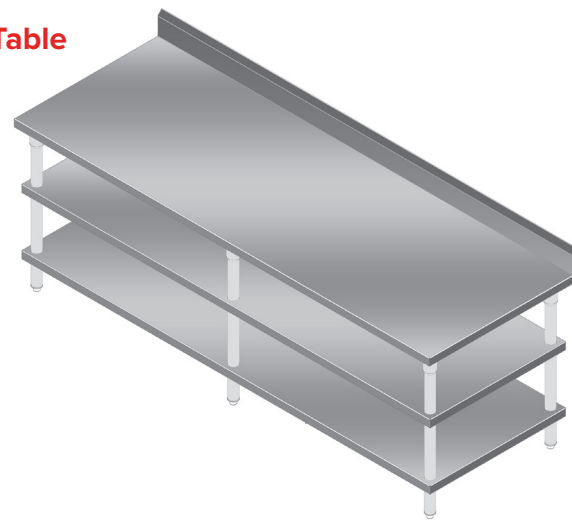
Tables

Our tables are designed and fabricated to minimize catch points, which quickens the cleaning and sanitization process of your environment. From smaller instrument tables essential for setting up a sterile field to larger work surfaces that enable case prep and more, a wide range of sizes accommodate a variety of ergonomic workspace solutions for teams throughout a facility. Sinks, backslashes, and any necessary accessories can be integrated into your table workspace.

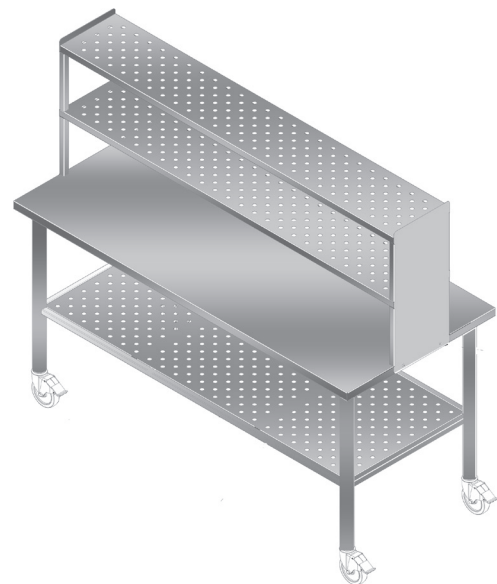
Options:

- Fixed legs or on wheels
- Insinks
- Back-splashes

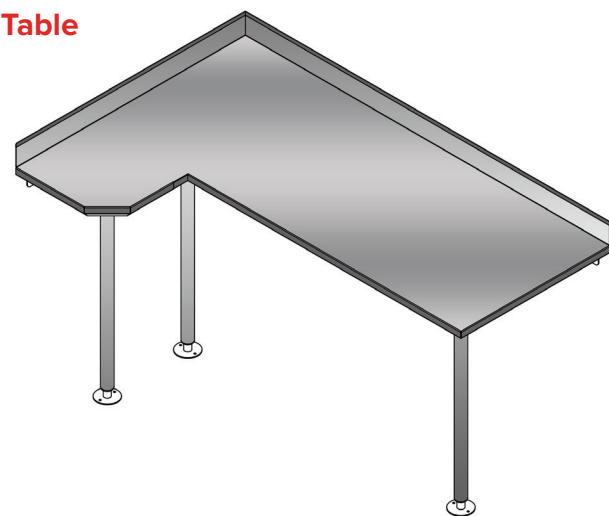
Shelf Table



Custom Rolling Table



Shelf Table



Workstation Table



Desks + Workstations

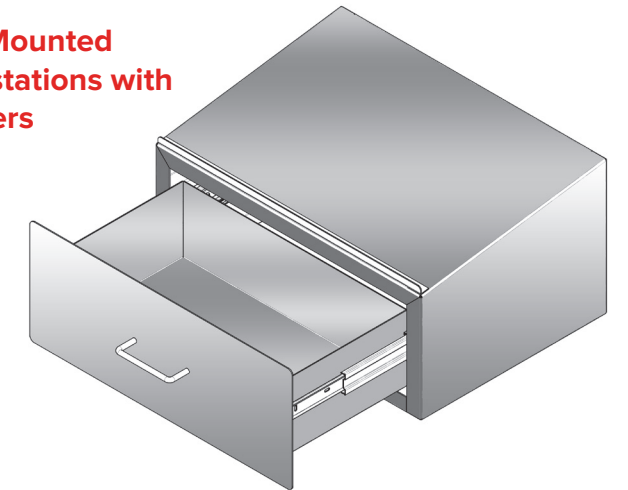
Our stainless steel desks and workstations maximize durability, functionality, and storage. You can fit out our desks or workstations with adjustable shelves, locks, or instrument/ equipment holders.

- Wheeled Desks
- Stationery Desk
- Workstation Desk

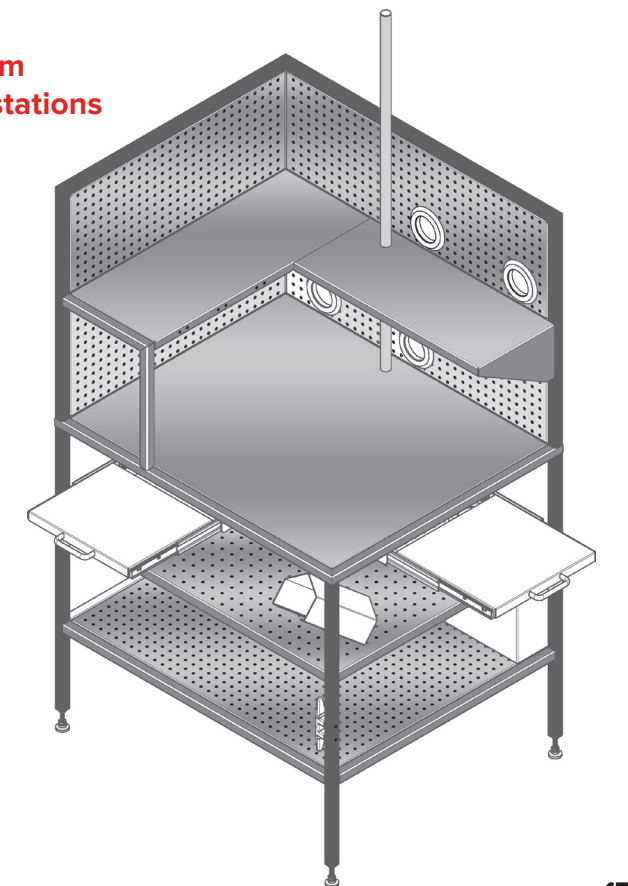
Workstations with Cabinets



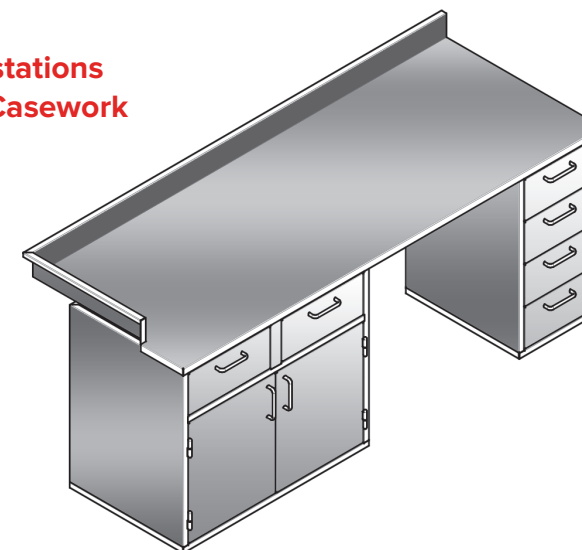
Wall Mounted Workstations with Drawers



Custom Workstations



Workstations with Casework

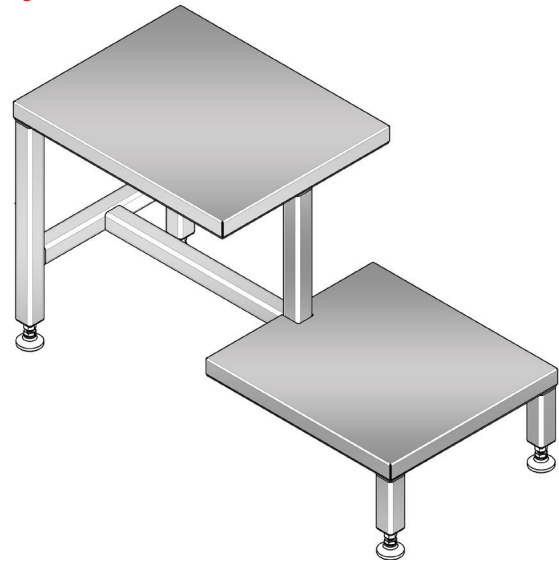




Gowning Room Furniture + Equipment

Gowning room furniture and equipment plays an important role in maintaining a controlled, safe and contamination-free environment for a cleanroom. Our modular selection of cleanroom gowning equipment provides the best in durability, safety and ergonomics. We can also work closely with you to design a change room layout that meets your process, people and product requirements.

Bootie Bench, Adjustable



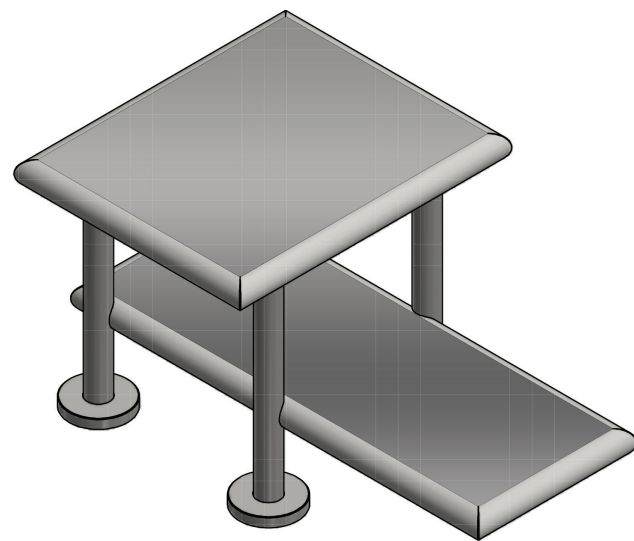
Benches

- Gowning Benches (Pedestal Bench)
- Shoe / Bootie Bench

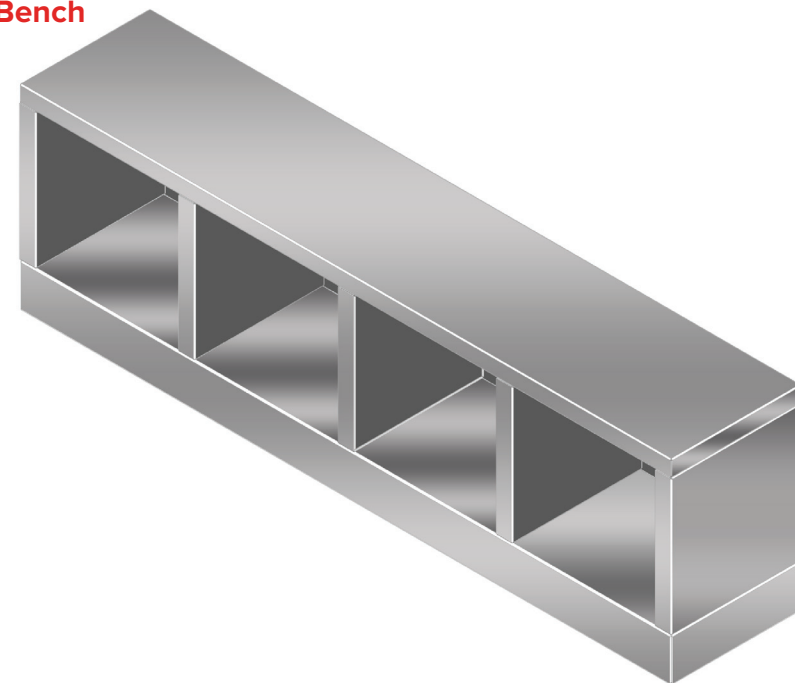
Gowning Bench



Bootie Bench



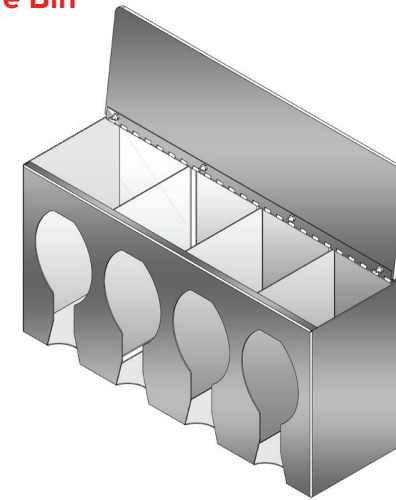
Step Over Bench



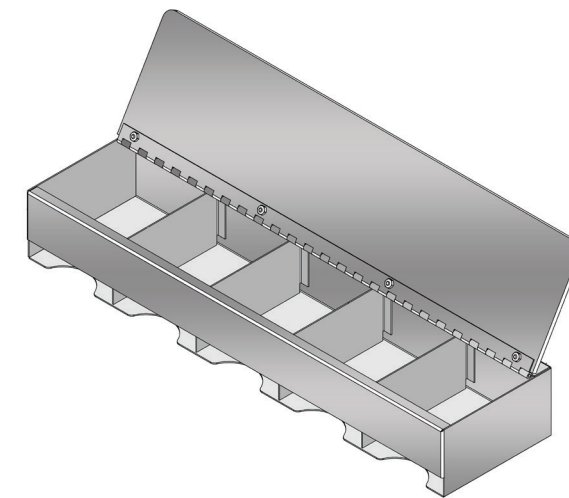
Clean Room Furniture + Equipment

We can design a custom PPE dispensing solution according to your PPE sequence for streamlined gowning. We can incorporate modular solutions for hair nets, booties, safety glasses, gloves, log books/ document holders. Our PPE dispensers can be wall mountable or free standing. We customize these dispensers for hair nets, booties, safety glasses, gloves, etc.

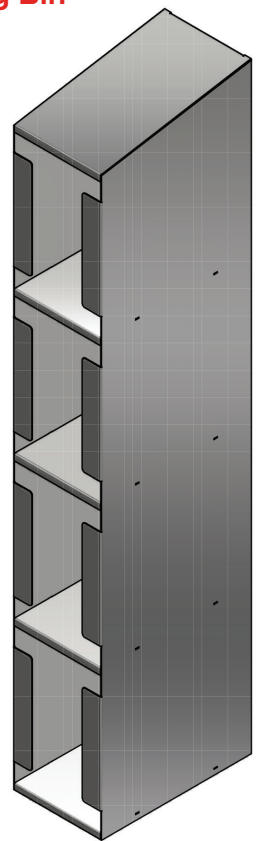
Glove Bin



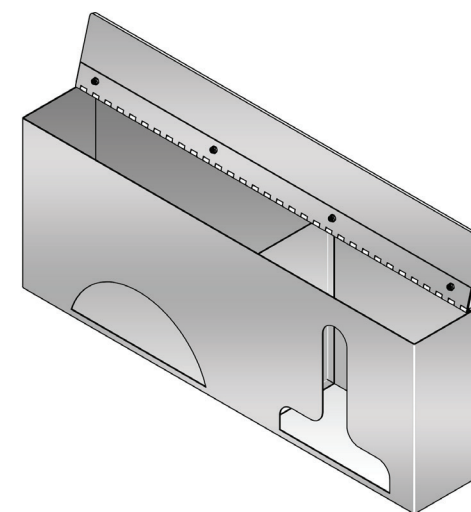
Low Profile Glove Bin



Wall Mounted Gowning Bin



Hat and Bootie Bin



Wall Mounted Modular PPE Dispenser

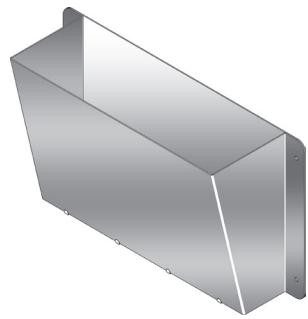




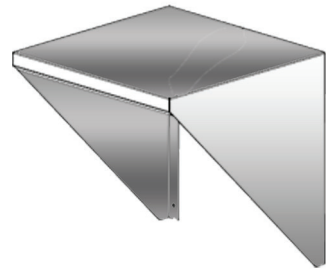
Other Airlock + Gowning Room Accessories

The pressure cascade created from the gowning room to an air lock to a cleanroom acts as a safeguard against the accidental influx of particles, dust and microbial contaminants. Controlled airlock areas, whether for personnel (PALs) or material (MALs), prevent direct airflow and contamination. Being a sheet metal contractor, we are experts in regulating air movements. We fabricate and install a variety of components for airlocks including pass-throughs, framing, paneling, cabinets, shelves, log book holders, etc.

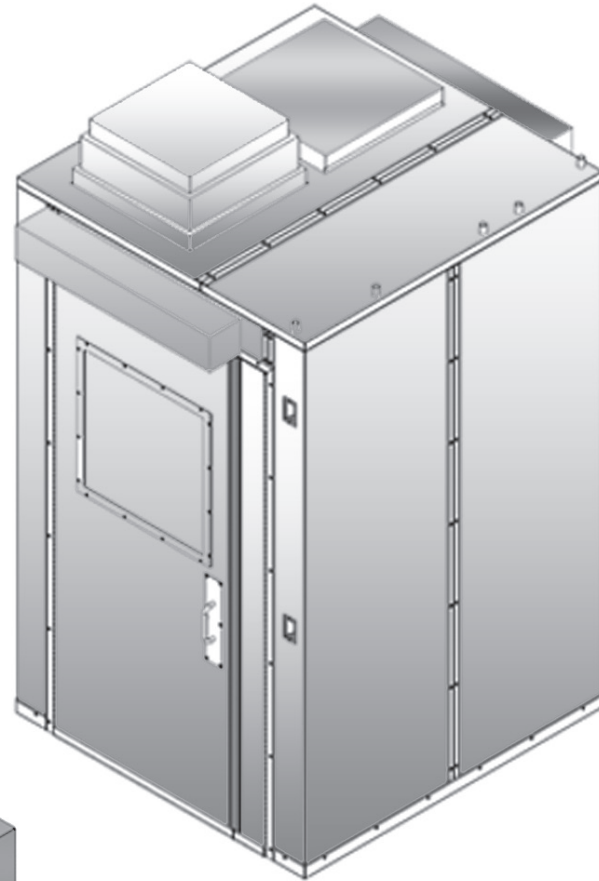
Wall Mounted Log Book Holder



Shelves



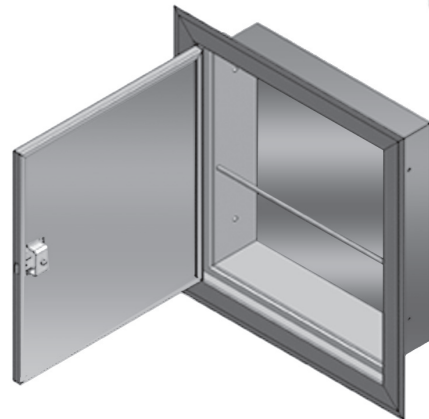
Entire Assembled Airlock Enclosures



Gowning Mirror



Recessed Cabinet



Equipment Floor Skirting, Shrouding & Valances

We fabricate and install stainless steel flashing, paneling, cladding shrouding, and valances around equipment. When debris gets in clean room equipment, it can contaminate a production line. Making the manufacturing area easier to clean allows less down time, and ensures microbial control within an environment.



Installed skirting with removable access panels along bottom of the exposed equipment



Installed equipment line with exposed base



Installed skirting trim around base of equipment





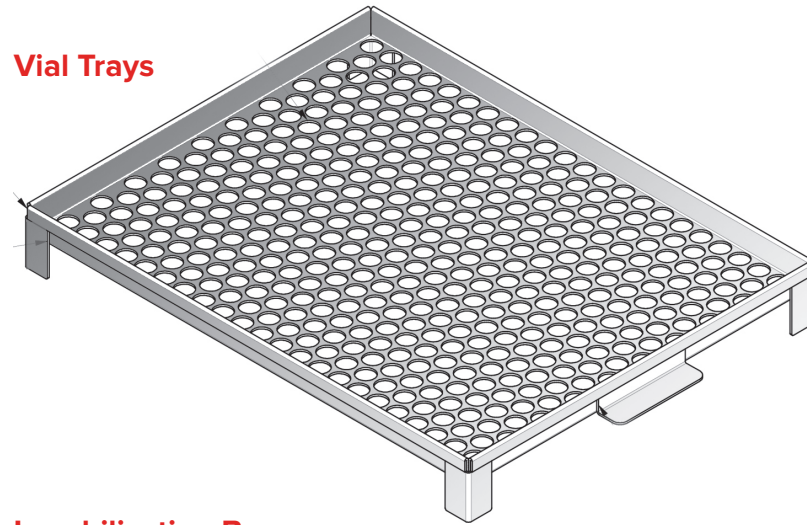
Trays, Baskets, & Racks

Stainless steel trays and racks are the safest way to hold samples, vials, or tools and carry or hold these items through both chemical and temperature-based sterilization processes. We can customize trays specific to the application.

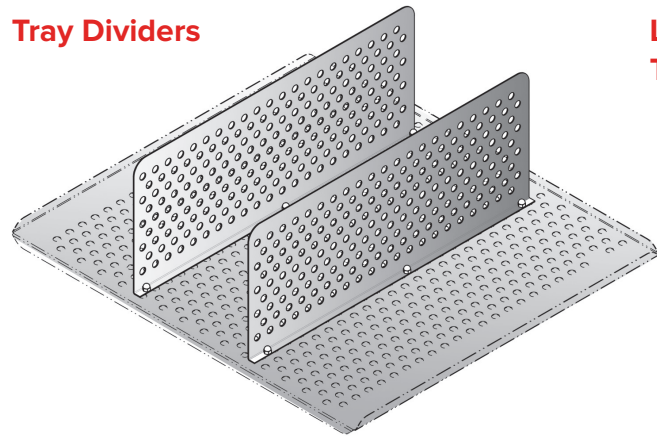
Options:

- Watertight TIG welded corners or spot welded tabbed corners.
- Gates can be pivoting or guillotine.
- Customized perforations according to your application.

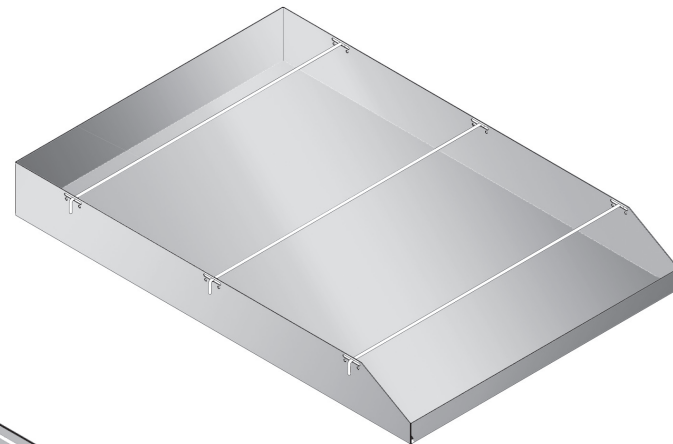
Vial Trays



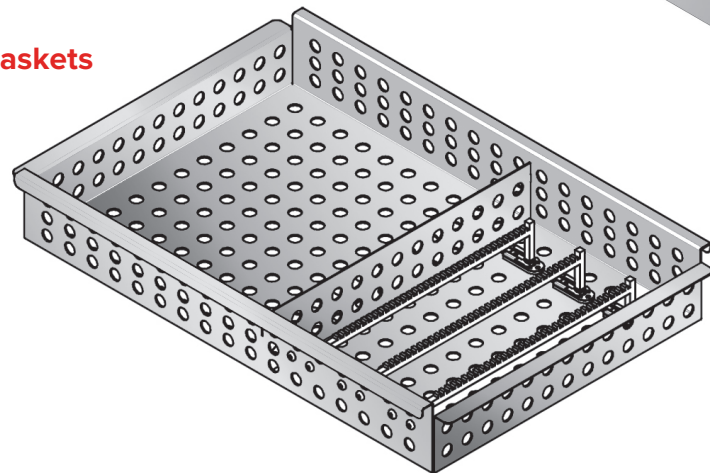
Tray Dividers



Lyophilization Bag Trays



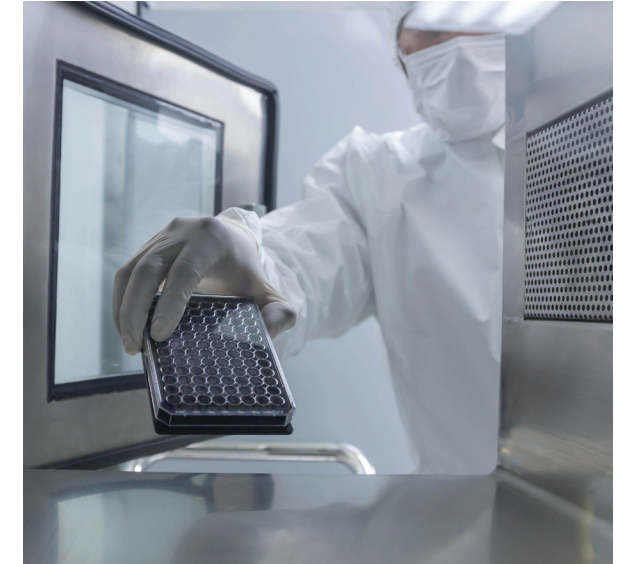
Sonicator Baskets



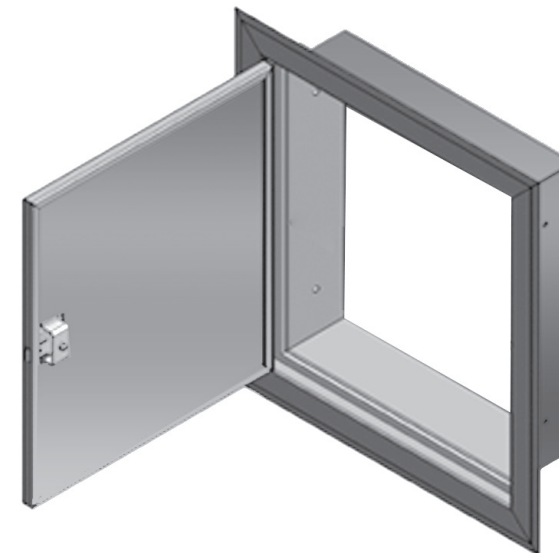
Pass-Throughs

Pass-throughs can reduce foot traffic in your controlled area. Utility pass-throughs can conceal pipe, lines from an uncontrolled environment to a controlled environment. We've made various designs of pass through chambers with unique features to help meet application specific cGMP standards and protocols for cleanliness, safety, and security. We have customized the following configurations of pass-through chambers:

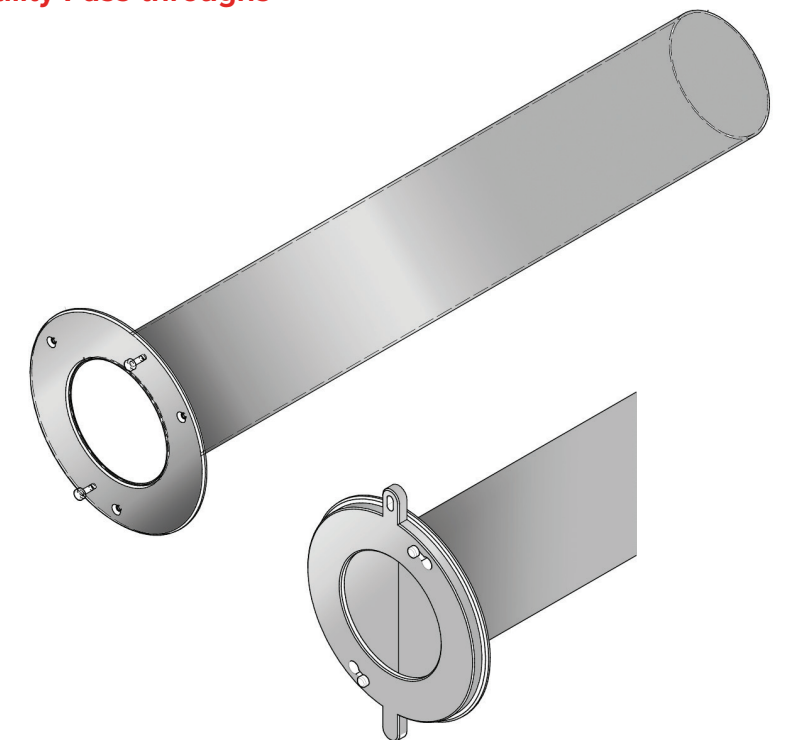
- Wall mounted: flush-mount against cleanroom wall to simplify disinfection and prevent particle accumulation
- Floor Mount with Ramp: pass throughs with ramps for cleanroom carts for transferring heavy equipment or sample racks into clean spaces



Wall Pass Through



Utility Pass-throughs



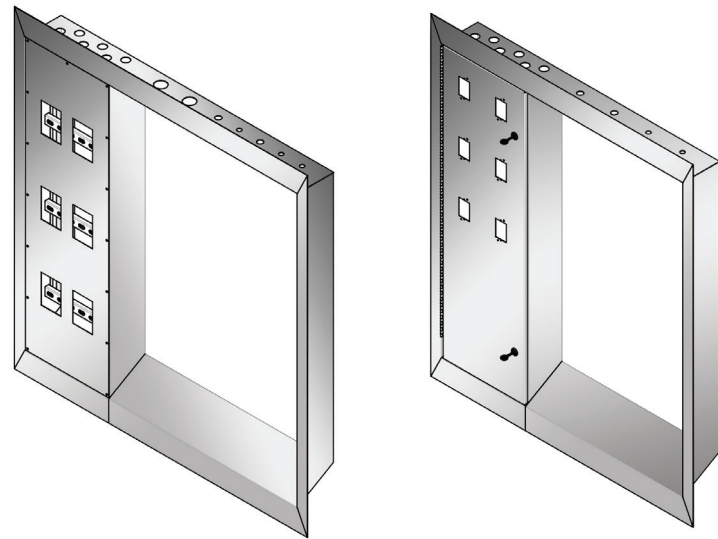


Utility Service Panels

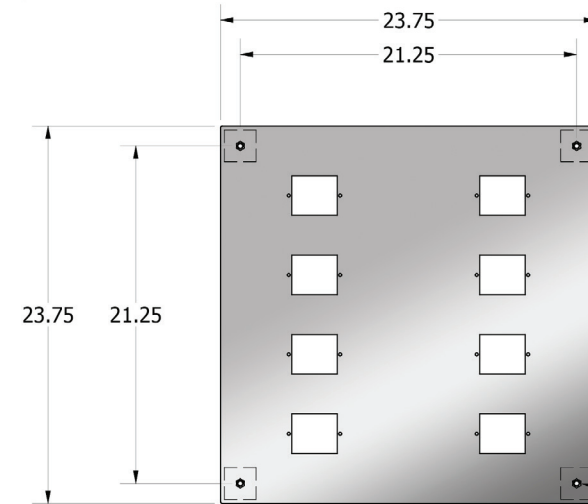
Utility Service Panels can be free-standing, or positioned on a wall; or overhead, commonly referred to as ceiling interface panels, or overhead utility panels (OUPs). Using our CO2 laser, we can accommodate any sizing for your ceiling grids, with custom cutouts your application needs.



Wall Mounted Service Panels

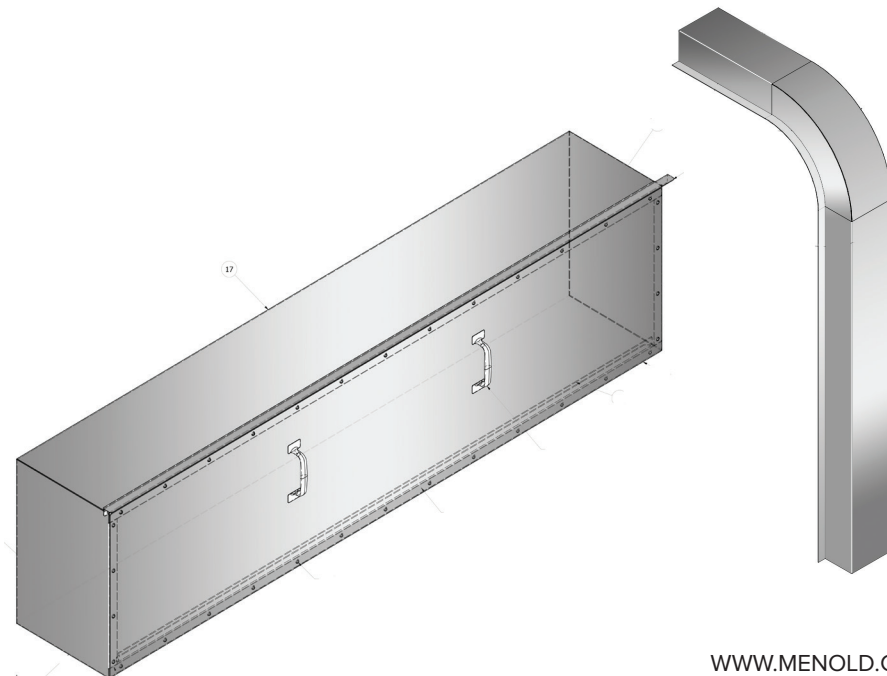
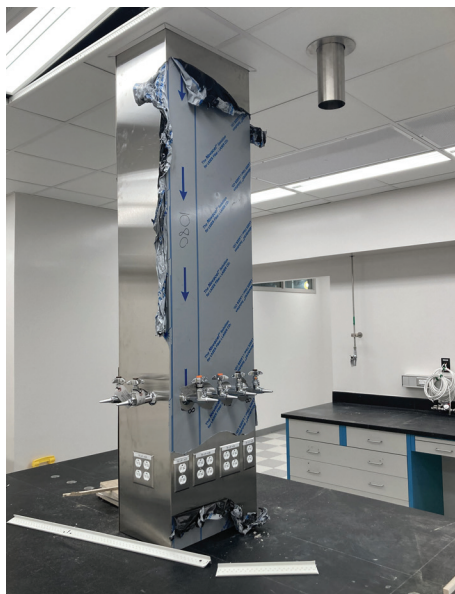


Overhead Utility Panel



Utility Chases

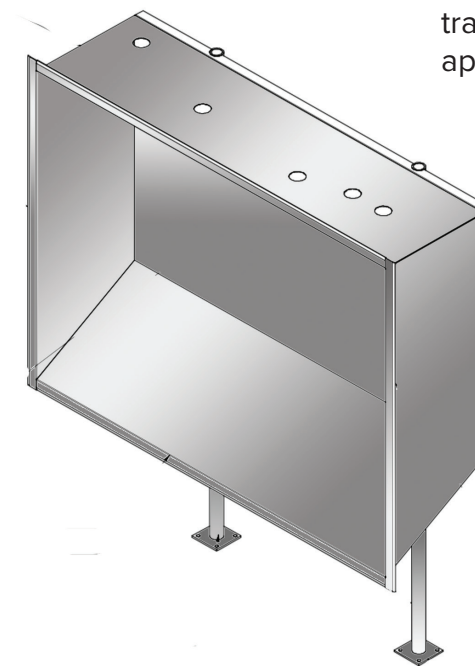
Utility chases can contain and hide process operations such as pipe, lines, and wires. We can include internal service ducts for the pipework and conduits.



Sanitary Flow Transfer Panels

We provide a wide range of sanitary and industrial transfer panels for process systems in the chemical, pharmaceutical, dairy, food and beverage industries. These hook-up stations distribute liquid products under controlled hygienic conditions, incorporating CIP (clean-in-place) and SIP (sterilize in-place) systems. We fabricate our panels with any necessary fittings for port connections. Panels can be frame mounted either flushed or recessed; or entirely free-standing and mobile.

Depending on the utilities needed for a panel, we work with our local trade partners to offer a full turnkey solution for your operation and application.

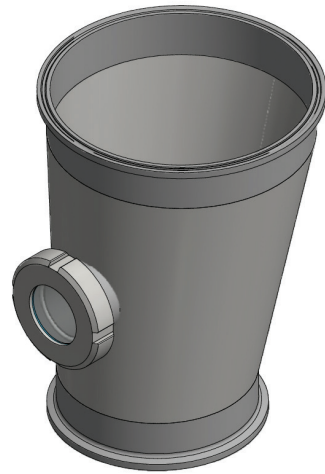




Custom Vessels & Sanitary Fittings

We fabricate and install sanitary fittings such as funnels, sifters, and connections that adapt to pharmaceutical equipment for the transfer of ingredients and materials. We can also fabricate fully-welded vessels. We fabricate tri-clamp ferrules onto custom fabricated items like process fittings for piping; or onto tanks. We have preferred vendors who we purchase our ferrules from, which meet 3-A sanitary standards, ASME-BPE specifications, and corrosion-resistant solutions.

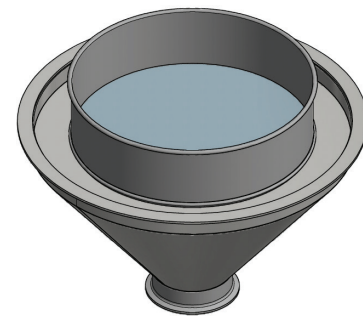
**Sanitary Reducer w/
Sight Window**



Hopper Funnel



Sifter Funnel



Catch Pot



Fully Welded Tank with Sanitary Fittings



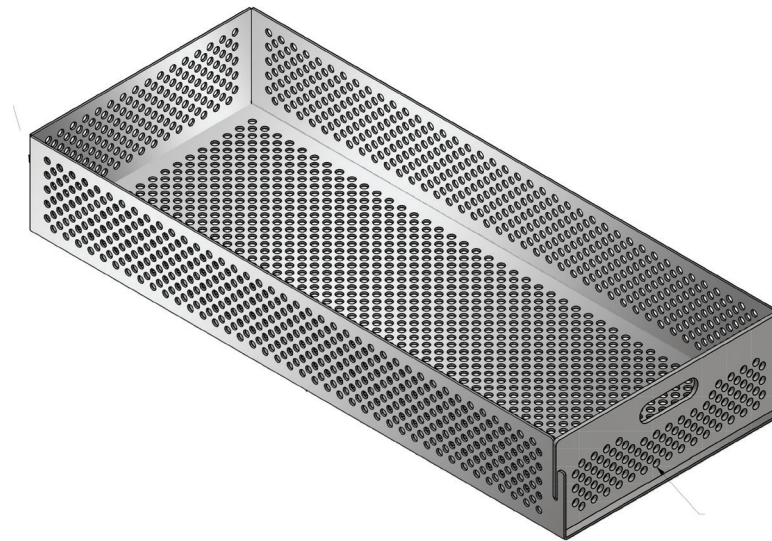
Autoclave Accessories & Modifications

We modify autoclaves to ensure airtight bioseal connections, creating a positive seal between the contained and non-contained sides of the autoclave. These modifications can be complicated panels with transitions. Our design team will work with you to ensure the Biosafety Level of your facility is met. We can fabricate and install the following components and accessories for autoclaves:

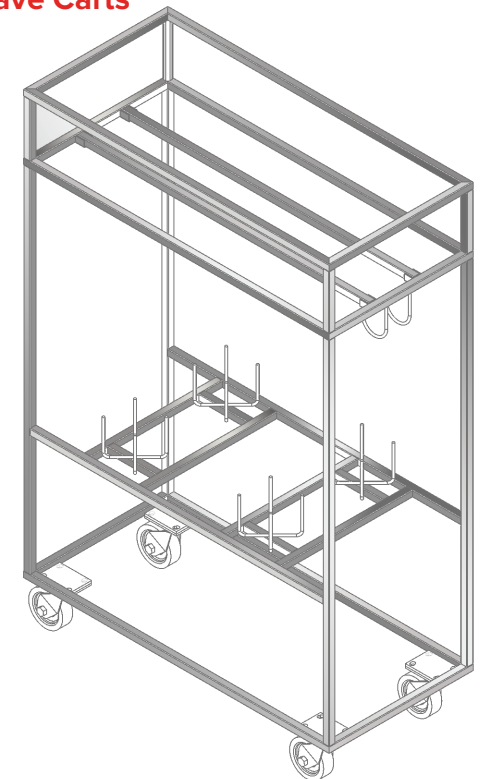
- Flanges
- Trim
- Panels
- Access doors
- Custom autoclave carts



Autoclave Tray



Autoclave Carts





Platforms

We have the capabilities to provide shop drawings, fabricate, and install platforms, stairs, ladders, catwalks, and walkways throughout a facility. If necessary, we can include stamped and sealed structural calculations.



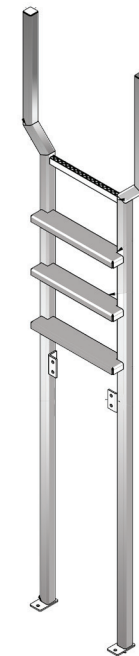
If a platform is required in a finished lab space that does not allow grinding, sanding, cutting, or welding- we have the experience in designing platforms that are stick built in-place with fasteners. This platform was designed, fabricated, pre-assembled in our shop, and then installed onsite in only 8 weeks:



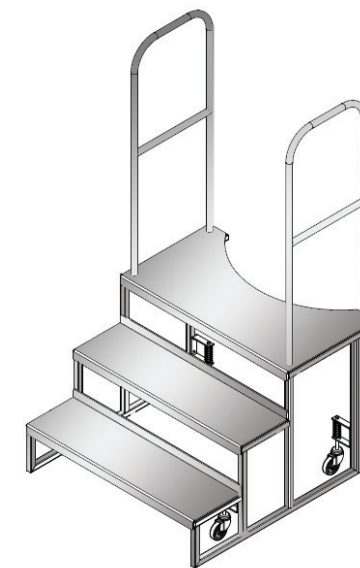
Ladders

We can fabricate virtually any type of stainless steel ladder; mobile, fixed access/ egress, aviation, or dock ladder. We can accommodate different treads like diamond plate, or perforated to reduce contaminants collecting. All our ladders meet OSHA and ANSI 3124 standards.

Egress Ladders



Mobile Step Ladders

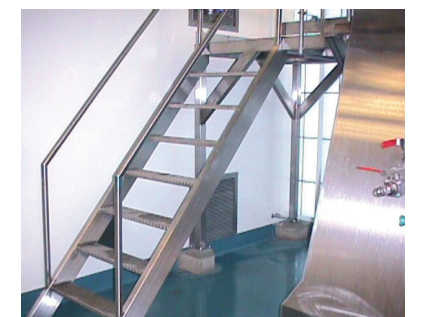
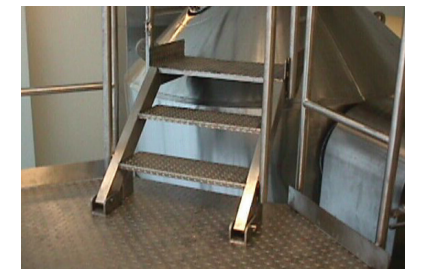
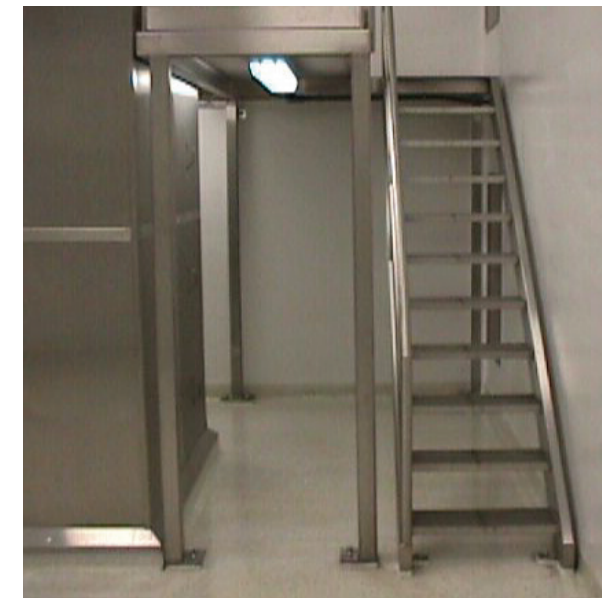


Fixed Step Ladders



Staircases

We fabricate full staircases for easier access to equipment such as blenders and tanks.





Safety & Wall Protection

We can protect your facility and operations with a number of solutions: surface panels & cladding, corner guards, railings and bumper rails, and bollards.

- Surface Panels & Cladding
- Corner Guards
- Railings + Bumper Rails
- Bollards

Wall Cladding



Bumper Rails



Bollard & Safety Gates



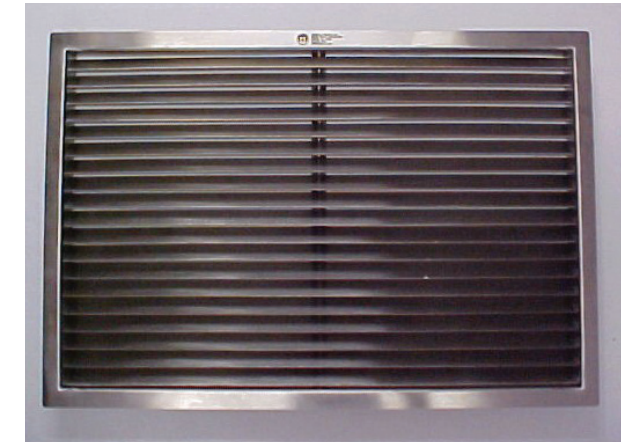
Corner Guards



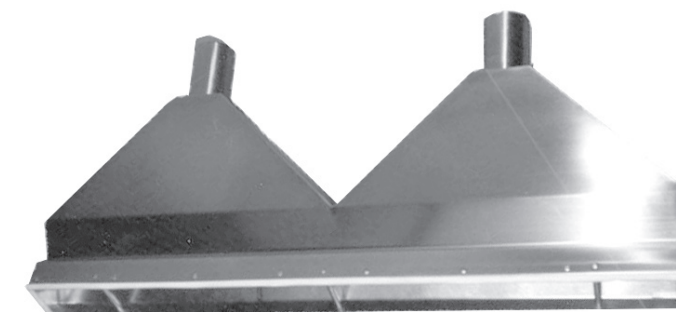
HVAC

Being a sheet metal contractor who fabricates and installs ductwork, we are very familiar with air distribution in controlled environments. We fabricate diffusers, filter grilles, diffusers, drop exhausts, drums louvers, etc.

Filter Grilles



Exhaust Fittings



Exhaust Drops

