

CASEWORK CONSTRUCTION DETAILS

Overview

Base Cabinets

Each cabinet is fabricated from prime quality furniture grade cold rolled or type 304-4 or 316-4 stainless steel. All components are die formed, notched, keyed and tightly fitted to form a solidly constructed electro spot welded rigid unit.

Each base cabinet incorporates a fully enclosed 4" high by 3" deep toe space at the front of the cabinet base. All base cabinets are provided with four 3/8" diameter leveler bolts accessible through 3/4" diameter pre-punched holes in the cabinet base. Each cabinet is provided with black press plugs to cover access holes after installation. All sink cabinets have satin coated (galvanized) steel bottoms, powder coated to match cabinets.

All base cabinets have full height removable back panels, except for sink cabinets which have 8" height removable back panels to facilitate plumbing. Removable backs are optional on drawer units. All cabinets have been designed to be vermin resistant.

Base cabinet doors and drawers are interchangeable in the field without special tools. Doors open full width without center posts on 30", 36", 42" and 48" wide base cabinets.

Drawers

Full access drawer bodies are formed with a one piece, coved bottom for effective cleaning, and a reinforcing bend on top edges. Depth of drawers are equal to the body depth of a standard cabinet less two inches. Drawer fronts are 3/4" thick pan construction. The space between the inner and outer drawer front is filled with a sound deadening core. Full extension ball bearing drawer runners have integral stops to prevent accidental withdrawal. Other drawer runner options such as soft closing, and interlocking are available.

Doors

Hinged metal doors feature a sturdy 3/4" thick double-pan construction, with a sound-dampening core housed in the space between the panels. Doors are mounted on high performance 2-1/2" five knuckle 14 gauge hinges, attached with four screws, and are held firmly closed with adjustable nylon roller catches. Framed glass doors are supplied with 1/8" (3mm) clear float glass.

Sliding doors are similar to hinged doors. Each sliding door is top hung with two 1" diameter nylon ball bearing rollers in a steel galvanized double track. The bottom of each door runs in a double PVC track. Rubber bumpers and stops are supplied with all doors.

Unframed glass doors are 1/4" (6mm) clear float glass with ground edges and integral pulls, set in an extruded aluminum shoe with nylon wheels. Doors slide in a top and bottom extruded aluminum track.

All glass supplied in floor cabinets (sliding frameless, hinged framed, sliding framed glass door units) is 1/4" (6mm) clear float glass.

Shelves

Shelves are fully adjustable on 1" increments with all edges formed down and back 1". Pull out shelves are suspended the same as standard drawers.

Hardware

Hardware is not included with products unless specified.

Coating Finish

All parts are pre-treated with an iron phosphate multi-stage process that includes a final sealer and reverse osmosis water rinse. The result is excellent adhesion between the metal and the coating. All exposed surfaces, including door and drawer head interiors, are electro-statically coated with a thermosetting laboratory grade powder coating. A broad palette of colors are available including multiple color schemes. Our coating is quality controlled to ensure consistent color match.

Quality

Our commitment to quality through our ISO Quality Management System assures the reliable, long life of our laboratory furniture.



STEEL LABORATORY FURNITURE CONSTRUCTION

Built to withstand tough laboratory environments, Mott's steel cabinets set the standard for durability and strength. Our casework can be part of fixed installations or components of mobile, suspended or flexible systems. We offer extensive door and drawer configurations, a wide variety of options, colors and finishes - providing you with a variety of layout options to maximize storage in your lab.

Mott's steel casework can meet the most challenging specification. All components have been tested to SEFA 8 Recommended Practices to ensure many years of intensive use in demanding environments. Our commitment to quality through the ISO Quality Management System assures the reliable, long life of your laboratory furniture.

We manufacture our basic cabinet as outlined below. However, today's laboratories often require customization, and to meet your unique needs, we can custom design and manufacture to meet your exact requirements. Simply contact us with your needs.

Drawers - Drawer bodies are one piece, reinforced and available in painted cold rolled steel or stainless steel. Drawer fronts are double pan construction and include sound deadening material.

Field Adjustable Design - Standard base cabinet doors and drawers are interchangeable in the field without the use of special tools. This provides unique future adaptability for changing laboratory needs.

Adjustable Shelves - Cabinet shelves are conveniently adjustable on 1" increments for maximum flexibility.

Protective Barrier - Casework can also be constructed from Sigma Barrier™, satin galvanized steel that provides an additional level of protection against rust and corrosion in high moisture areas.

Sink Cabinets - Supplied with Sigma Barrier™ satin galvanized toe kick base and cabinet bottom to further prevent rust developing from commonly wet operating conditions.

Cabinet Construction - Each cabinet is fabricated with quality workmanship using furniture grade cold rolled steel with high pre and post-consumer recycled content. All components are die formed, notched, welded and tightly fitted to provide maximum strength, rigidity, and consistent appearance.



Coating Finish and Color - A thermosetting laboratory grade powder coating delivers exceptional chemical and scratch resistance, excellent hardness, adhesion, and a quality luster. The long lasting finish is available with 15 standard color options, including multiple color schemes, and color matching capabilities.

Full Height Removable Back Panels - Standard door base cabinet backs are easily removable without the use of tools. This provides effective vermin control, and very importantly, increased access to services.

Drawer Suspension - An array of drawer suspension systems are available: 100lbs to 200lbs load capacity and features such as full extension, soft-close and self-closing.

Handles and Hinges - A wide selection of handles and hinges are available to meet specific aesthetic and functional requirements.

Positive Door Catch - Optional self closing catch on inset cabinets that prevents rebounding. The body of the catch is built into the cabinet and the latching pin is mounted to the door for secure, solid closure. Standard on overlay cabinet design.

Doors - Double pan construction with sound deadening material and durable five knuckle hinges are bolted through the cabinet frame and are standard on all doors.

SEFA 8 LABORATORY FURNITURE

Recommended Practices

The Scientific Equipment and Furniture Association (SEFA) is a voluntary international trade association representing members of the laboratory furniture, casework, fume hood, and related laboratory equipment industry. Mott Manufacturing is a SEFA member.

The SEFA mission is to provide a forum for members to identify strategies to improve the quality, safety and timely completion of laboratory facilities to meet customer requirements.

SEFA has developed, through its membership, several recommended practices that are designed to promote better understanding between manufacturers and purchasers and to assist purchasers in selecting and specifying the proper product to meet the user's needs.

The SEFA 8 Recommended Practices provide manufacturers, specifiers, and users tools for evaluating the safety, durability, and structural integrity of laboratory casework.

Mott's line of laboratory furniture meets the performance requirements of the SEFA 8 Recommended Practices. A copy of the SEFA 8 Recommended Practices can be obtained from Mott Manufacturing complete with a certificate confirming the Sigma Systems line of laboratory furniture compliance to this performance standard.

The following is a summary of some of the SEFA 8 performance standards required of a standard 48" wide standing height base cabinet.

Cabinet Physical Strength Performance Tests

Cabinet Load Test

A 2,000 pound test load is mounted on top of a cabinet to evaluate its structural integrity and load bearing capability.

Cabinet Concentrated Load Test

A 200 pound center test load is mounted on top of a cabinet to evaluate its functional characteristics.

Cabinet Torsional Strength Test

A 200 pound test load is mounted on top of a cabinet which has been raised four inches off the floor with supports under three of the four corners to evaluate the cabinet's structural integrity.

Door Hinge Test

A 200 pound test load is hung from a door as it is cycled through the hinge full arc to demonstrate the door and its

hardware durability.

Door Impact Test

A 240 inch-pound impact test force is applied to the door face to evaluate its impact resistance.

Door Cycle Test

A door is swing tested through 90 degrees for 100,000 cycles to evaluate the hinge durability.

Drawer Load Test

A 150 pound test load is hung from an opened drawer to demonstrate its ability to support a point load at the drawer front and confirm the attachment of the drawer head to the body.

Drawer Cycle Test

A 100 pound static test load is distributed evenly in the drawer and the drawer is cycled 50,000 times from the fully open to fully closed position to confirm a reasonable life of the drawer slide mechanism under full load.

Drawer and Door Pull Test

A 50 pound test load is applied to the pull to evaluate the strength of the pull and its mounting hardware.

Drawer Impact Test

A 10 pound test load is dropped into an open drawer to evaluate the drawer and slide mechanism impact resistance.

Cabinet Surface Coating Performance Tests

Chemical Spot Test

The coated surface is exposed to 49 specified chemical reagents commonly found in laboratory applications to evaluate its resistance to chemical spills.

Hot Water Test

The coated surface is tested to evaluate its resistance to hot water.

Impact Test

A one pound ball is dropped on the surface to evaluate the coating's ductility.

Adhesion Test

A scratch test conducted according to ASTM D2197-86 is conducted to confirm adequate coating adhesion.

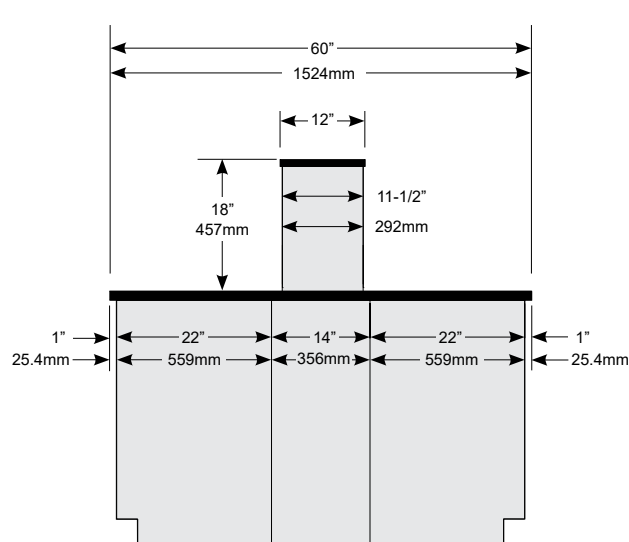
Hardness Test

A 4H pencil lead is used to determine the hardness of the coating.

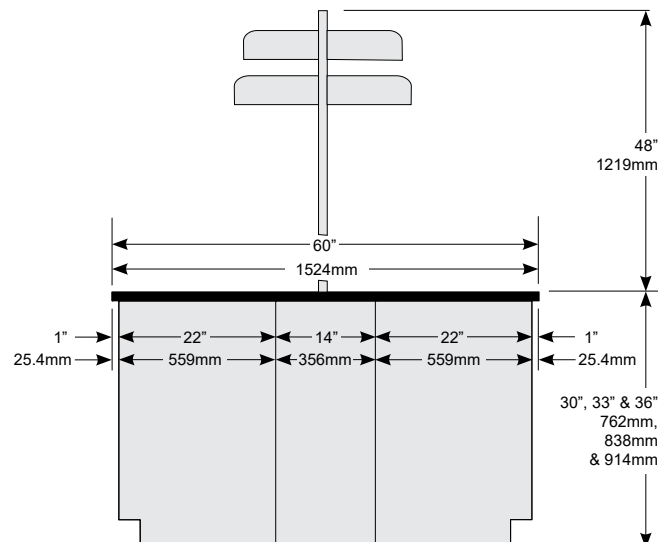
TYPICAL WORK AREA

Details

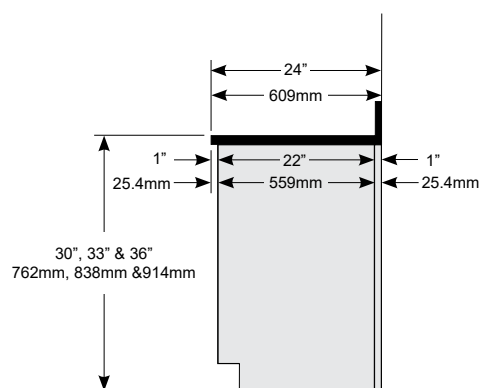
The following details are provided to illustrate how base cabinets, filler panels and countertops combine to construct a laboratory work area.



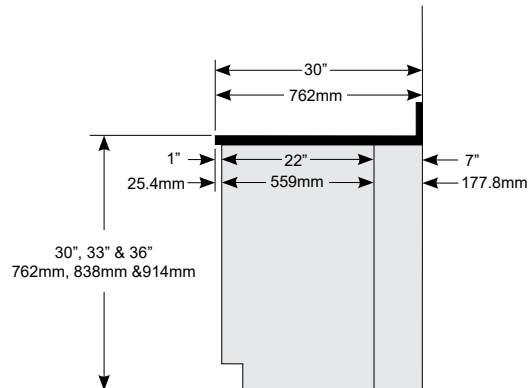
Island type configuration with 60" wide counter top, base cabinets, 14" filler panel and reagent shelf. A large space for services is concealed behind the 14" filler panel.



Island type configuration with 60" wide counter top, base cabinets and 14" filler panel. Optional center post assembly with shelving. A large space for services is concealed behind the 14" filler panel.



Standard base cabinet configuration with 24" wide counter top, base cabinet and filler 1" panel.



Base cabinet configuration with 30" wide counter top, base cabinet and filler 7" panel. The area covered by the 7" filler panel provides space for required services.

CABINET STYLES

The full range of Mott cabinetry is available in the following styles:

Our steel cabinets can be fitted with your choice of door and drawer fronts made from painted steel, stainless steel, wood, plastic laminate or phenolic resin. Typically designed with overlay construction, inset fronts can also be provided. Our flexibility in design allows you to create a unique lab that appeals to aesthetics, while also meeting the varied preferences and complex needs of the laboratory user.

Inset Cabinets

Powder Coated Steel Inset Cabinet



The long-lasting powder coated finish, with over 15 standard color options, including multiple color schemes can also be matched to custom colors. Standard construction.

Stainless Steel Inset Cabinet



Type 304 or 316 stainless steel are manufactured to a No.4 finish. Use option code 51 for type 304 stainless steel. Use option code 52 for type 316 stainless steel.

Architectural Overlay Cabinets

Powder Coated Steel Architectural Overlay Cabinet



To specify Architectural Overlay design use option code OL. The long-lasting powder coated finish, with over 15 standard color options, including multiple color schemes can also be matched to custom colors.

Stainless Steel Architectural Overlay Cabinet



To specify Architectural Overlay design use option code OL. Type 304 or 316 stainless steel are manufactured to a No.4 finish. Use option code 51 for type 304 stainless steel. Use option code 52 for type 316 stainless steel.

Architectural Overlay Cabinets With Wood Veneer, Plastic Laminate, Phenolic Resin Fronts



Wood Veneer Fronts: Combine the strength of our steel casework with the aesthetic warmth of wood fronts. We can provide a wide range of wood veneers in various cuts, matching and sequencing options, for drawer and door fronts. We offer a variety of stains and custom staining to match existing casework. Typically designed with overlay construction, inset fronts can be provided.

Plastic Laminate Fronts: Integrate the durability of our steel cabinet construction with the endless combinations of high-pressure laminate fronts. Typically designed with overlay construction, inset fronts can also be provided.

Phenolic Resin Fronts: Pair our rugged steel cabinet construction with our wide selection of phenolic resin fronts to create a resilient cabinet for harsh environments. Typically designed with overlay construction, inset fronts can also be provided.

SIGMA BARRIER™ COATING



Mott's Sigma Barrier™ coating provides excellent moisture and corrosion resistance in applications that involve high levels of wetness and humidity. Our full range of powder coated products are available with Sigma Barrier™ coating. It is standard on the bottom of all sink cabinets to protect against rusting in moist, high abuse areas. To specify Sigma Barrier™ use option code 53. Contact Mott for detailed Sigma Barrier™ test results.

OPTIONS

Door/Drawer Handles

Several different styles of door/drawer handles that are offered to suit specific customer requirements. Please use the option numbers below to specify the handle of your choice.

* Provide complete specification and source for all special options ordered.

Option Code	Description
16	Ship handles not installed
18	Horizontally mounted handles
29	Other customer specified hinge*
69	Other customer specified handle*
6A	Recessed stainless steel tapered pull



OPTION 62 (Standard)
4" Brushed Aluminum Pull



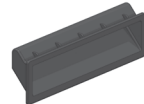
OPTION 60
4" Black Nylon Pull



OPTION 61
4" Stainless Steel Wire Pull
OPTION 68
4" Aluminum Wire Pull



OPTION 63
4" Chrome Pull



OPTION 64
5" Black Flush ABS Pull
64B Beige, 64G Gray,
64W White



OPTION 65
4" Flush Aluminum Pull
For Sliding Doors



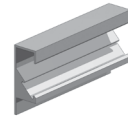
OPTION 65
4" Flush Aluminum Pull
For Hinged Doors and
Drawers



OPTION 66
4" Flush Aluminum
Painted Black Pull
For Sliding Doors



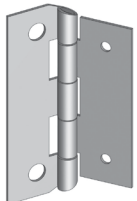
OPTION 66
4" Flush Aluminum
Painted Black Pull
For Hinged Doors and
Drawers



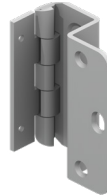
OPTION 67
Flush Full Width Pull

Door Hinges

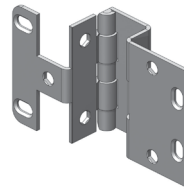
Mott cabinets come with durable 14 gauge, five knuckle hinges. Hinges are available in black powder coat, chrome plated or stainless steel finishes. Please use the option numbers below to specify the hinge of your choice.



OPTION 21
Chrome Hinge (Standard)
OPTION 22
Black Hinge
OPTION 23
Stainless Steel Hinge



Overlay Hinge for
cabinets with steel
fronts



Overlay Hinge for
cabinets with wood
fronts

OPTION 20
Dull Chrome Overlay Hinge
OPTION 24
Stainless Steel Overlay Hinge

Drawer Body & Suspension

Drawers are available in powder coated cold rolled steel or stainless steel with the available options.

Option	Description
00	Modified door/drawer configuration
50	304 stainless steel drawer bodies on powder coated steel cabinet
26	200lb full extension drawer runners
F26	File drawer with 200lb full extension drawer runners
I01	100lb full extension drawer runners with interlock
I26	200lb full extension drawer runners with interlock
S01	100lb full extension soft close drawer runners
S26	200lb full extension soft close drawer runners
59	Customer specified drawer runners (customer details required)

OPTIONS

Lock and Key Options

Option	Description
30	Standard locks on doors/drawers supplied and factory installed*
31	Provisions for standard locks on doors/drawers (holes & tabs)*
37	Hasp Lock (padlocks not included)
37A	Hasp Lock with stainless steel plate (pad lock not included)
38	Customer specified locks on doors/drawers supplied and factory installed**
39	Customer specified locks on doors/drawers supplied and not factory installed**
BS	Best locks (housing only), core not provided
LK5	5 pin tumbler with non-removable core, three level keying
LK6	5 pin deadbolt with non-removable core, three level keying

Notes: *Standard lock is a disc tumbler lock. Each cabinet is keyed differently per unit unless otherwise specified.

**Provide complete specification and source for all special options ordered.

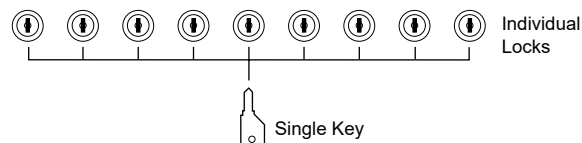
All Locks Keyed Different Per Unit



Locks are keyed different per unit from other units.

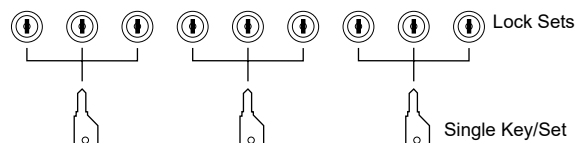
Note: This is the standard key schedule with disc tumbler lock supplied for option code 30 unless otherwise specified.

All Locks Keyed Alike

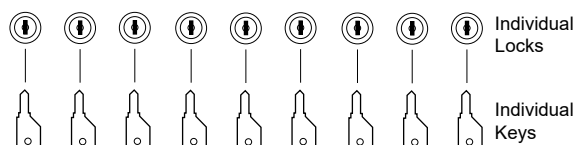


All locks are keyed alike, each lock can be opened with a single key.

Locks Keyed Alike in Sets

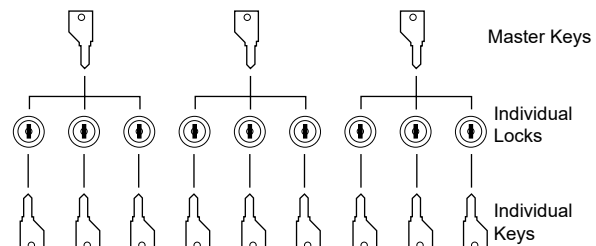


Locks are keyed alike in sets. Only one key will open one set of locks within the set. Up to 229 key changes for disc are available.



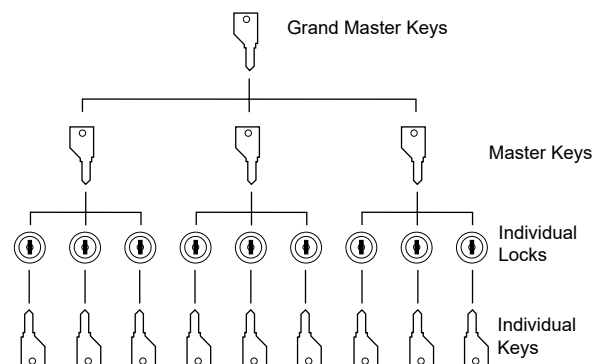
Locks are keyed different from other locks. Up to 229 key changes for disc are available.

Master Keyed Locks



All locks are keyed different from all other locks. Each set within a group can be opened with a master key. Up to 229 key changes for disc are available.

Pin Locks Keyed Different, Grand Master & Master Keyed



All locks are keyed different from all other locks. Each set within a group can be opened with a master key. All groups can be opened with a grand master key. 400 key changes and up to 10 master keys.