

## CASEWORK CONSTRUCTION DETAILS

### Overview

#### 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, fully coved bottom for effective cleaning, and a reinforcing bend on all top edges. Drawer fronts are 3/4" thick double pan construction. The space between the inner and outer drawer front is filled with a sound deadening core. Drawers have integral stops to prevent accidental withdrawal, and are self closing for the last 6". Drawers are suspended on 1" diameter nylon rollers with steel ball bearings in a radiused galvanized steel track. File drawers are equipped with full extension ball bearing runners and hanging file supports.

#### Doors

Hinged metal doors are 3/4" thick double pan construction with hat channel reinforcements. The space between the inner and outer door front is filled with a sound deadening core. 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 friction 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 1/2" 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.

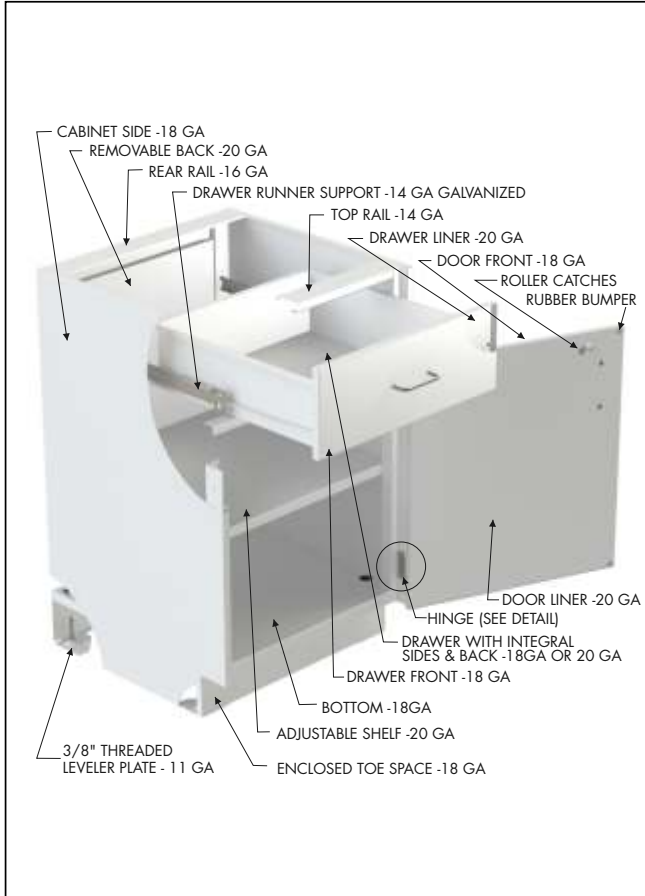
#### Quality

Our commitment to quality through our ISO Quality Management System assures the reliable, long life of our laboratory furniture. Consistent attention to detail delivers the following outside dimension tolerances:

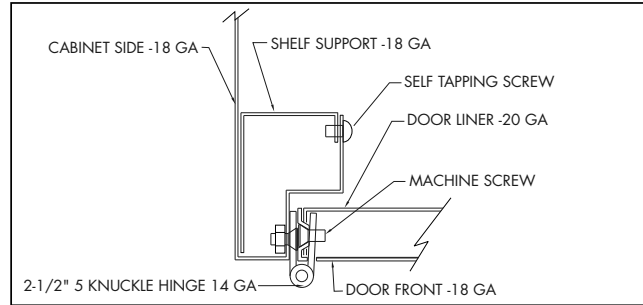
|          | Width    | Depth    | Height   |
|----------|----------|----------|----------|
| Cabinets | +0,-1/16 | +0,-1/16 | +0,-1/16 |

CASEWORK CONSTRUCTION DETAILS

Base Cabinet Gauges



Corner Hinge Detail On Inset Cabinet



Wall Cabinet Gauges



Drawer Body Note: 30" wide or larger drawers are 18 gauge, otherwise drawers are standard 20 gauge.

CUSTOM CAPABILITIES



Pass Through Cabinet

Today's laboratories often require customization to meet very specific and necessary requirements. We can provide innovative custom product solutions to meet your specific requirements. We have handled design challenges from the simple to the complex. Mott has the experience, software, and state-of-the-art tooling necessary to work with you to conceptualize, develop, design and fabricate custom products. It may be as simple as modifying a dimension, or as complicated as designing a new piece of furniture; simply contact us with your needs.

## 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.

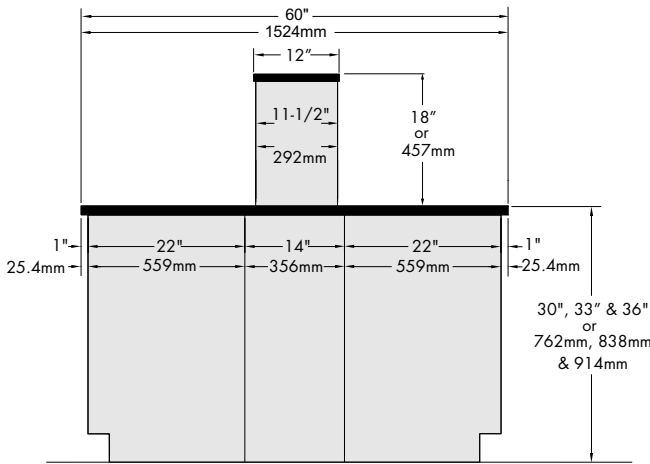
**Adhesion Test** - A scratch test conducted according to ASTM D2197-86 is conducted to confirm adequate coating adhesion.

**Hardness Test** - A 4H pencil lead is used to determine the hardness of the coating.

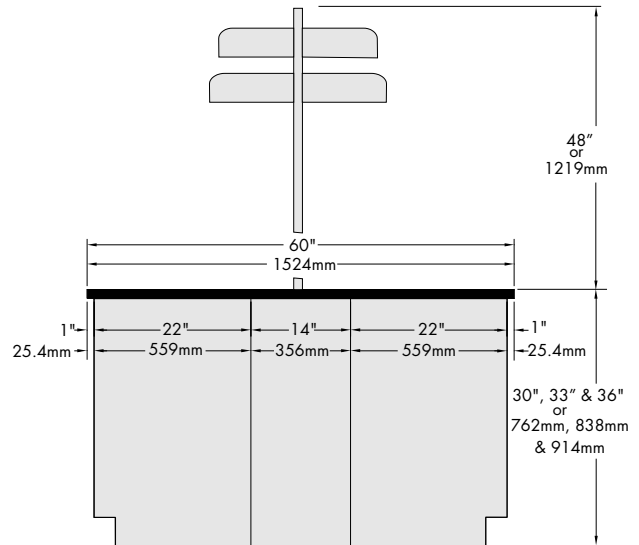
TYPICAL WORK AREA

Details

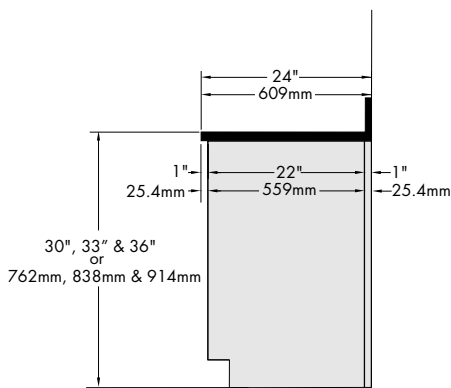
The following details are provided to illustrate how base cabinets, filler panels and countertops combine to construct a laboratory work area.



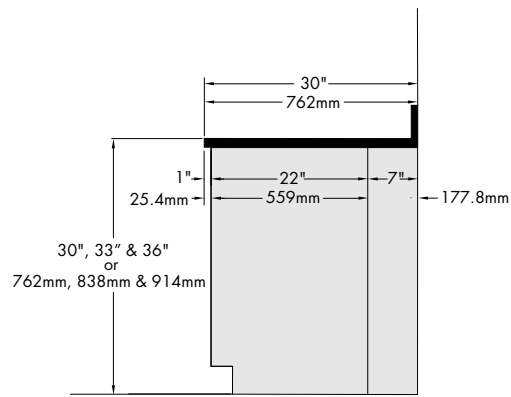
Island type configuration with 60" wide counter top, base cabinets, 14" filler panel and reagent shelf. A large space for services is concealed behind the 14" filler panel.



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:

### Inset Cabinets

#### Powder Coated Steel Inset Cabinet



The long-lasting powder coated finish, with over 20 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 20 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 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 also be provided. To specify wood fronts use option code WF.

## 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.

| 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 |

Notes: \*Available at an additional charge

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



OPTION 62 (Standard)  
4" Brushed Aluminum Pull



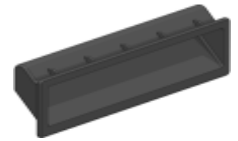
OPTION 60  
4" Black Nylon Pull



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



OPTION 63  
4" Chrome Pull



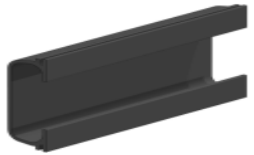
OPTION 64  
5" Black Flush ABS Pull  
64B Beige, 64G Gray,  
64W White



OPTION 65  
4" Flush Aluminum Pull  
For Sliding Doors



OPTION 65  
4" Flush Aluminum Pull  
For Doors and Drawers



OPTION 66  
4" Black Flush PVC Pull  
For Sliding Doors



OPTION 66  
4" Black Flush PVC Pull  
For 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 (Standard) Chrome Hinge  
OPTION 22 Black Hinge  
\*OPTION 23 Stainless Steel Hinge



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

\*Available at an additional charge

### Drawer Body & Suspension

Drawer bodies are one piece, full access and reinforced. Drawer fronts include sound deadening material. Drawers are available in powder coated cold rolled steel or stainless steel.

Standard drawer suspension is 100 lbs with 3/4 extension runners, optional suspension systems are available. Nylon tire suspended drawers are self closing during the last 6" of travel for effortless use and reliable safety.

| Option Code | Description                                                      |
|-------------|------------------------------------------------------------------|
| 00          | Modified door/drawer configuration                               |
| 50          | 304 stainless steel drawer bodies on powder coated steel cabinet |
| 01          | Full extension drawer runners                                    |
| 26          | 200lb full extension drawer runners                              |
| F26         | File drawer with 200lb full extension drawer runners             |
| I01         | Full extension drawer runners with interlock                     |
| I26         | 200lb full extension drawer runners with interlock               |
| S01         | Full extension soft close drawer runners                         |
| S26         | 200 lb full extension soft close drawer runners                  |
| 59          | Customer specified drawer runners (customer details required)    |

**OPTIONS**

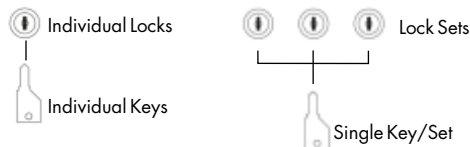
**Lock and Key Options**

| Option Code | 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                                    |
| LK4         | Standard 5 pin tumbler lock with removable core, three level keying             |

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

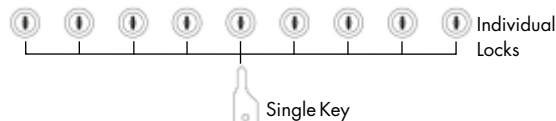
\*\*Provide complete specification and source for all special options ordered.

**All Locks Keyed Different Per Unit**



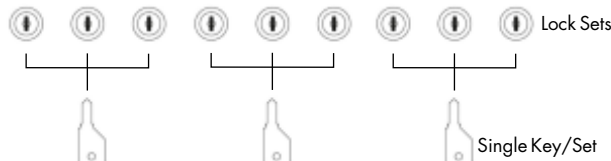
Locks are keyed different per unit from other units.  
Note: This is the standard key schedule with disc tumbler lock supplied for option code 30 unless otherwise specified.

**All Locks Keyed Alike**



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

**Locks Keyed Alike in Sets**

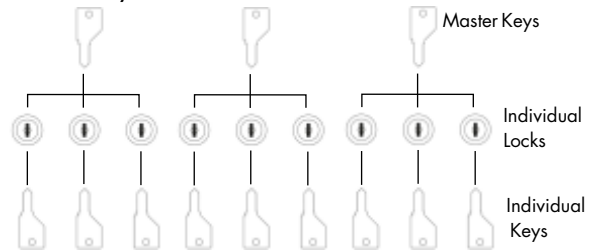


Locks are keyed alike in sets. Only one key will open one set of locks within the set. Up to 229 key changes for disc are available.



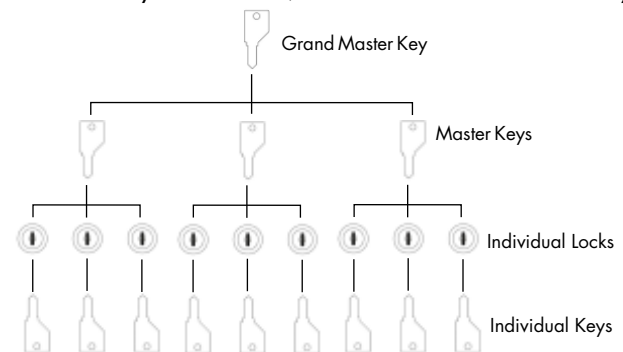
Locks are keyed different from other locks. Up to 229 key changes for disc are available.

**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.