

Apron frames and rails are provided with two matching steel end caps to facilitate field cutting to the correct length.

Lined Acid Storage Cabinets

Acid cabinets are lined with chemically resistant 3/16" thick fiber glass reinforced plastic or may feature a one piece molded polyethylene liner. Removable back panels are held in place with stainless steel screws and may be vented. Each cabinet has one black phenolic shelf.

Insulated Solvent Storage Cabinets

Insulated Solvent Storage cabinet are fabricated with a 2" insulated double wall and are approved to UL1275, and meet National Fire Protection Association standards. The floor of the cabinet has a 2" deep liquid tight spill containment pan. Doors are mounted on continuous hinges with a three point locking self latching handle. Optional self closing doors are also available. Each cabinet has two 2" diameter vents in the rear of the cabinet, complete with fire baffles and vent covers. Each cabinet has one galvanized steel shelf. Cabinets are marked "FLAMMABLE KEEP FIRE AWAY."

Uninsulated safety cabinets that meet National Fire Protection Association standards are also available.

Standard Cabinet Gauges	
Drawer bodies*, Shelves, Door and Drawer Liners, Removable Backs	20 gauge
Cabinet Gables, Tops, Bottoms, Toekicks, Outer Door and Drawer Front Panels, Table Frames, Filler Panels, Sloping Tops	18 gauge
Top and Intermediate Channels, Table Legs, Base Cabinet Rear Rail	16 gauge
Drawer Suspension, Hinge Plates, Base Cabinet Top Rail	14 gauge
Cabinet Leveler Support	11 gauge

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

Quality

Sigma Systems[™] laboratory furniture is manufactured to high quality standards. Consistent attention to detail delivers the following outside dimension tolerances.

Item	Finished Tolerance		
	Width	Depth	Height
Cabinetry	+0, -1/16	+0, -1/16	+0, -1/16
Fume Hoods	+0, -1/8	+0, -1/8	+0, -1/8

*Fume hood under 100" (2540 mm) in width.

Coating Finish

All parts are pre-treated with an iron phosphate multi-stage process that includes a final sealer and deionized 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 an thermosetting laboratory grade powder coating.

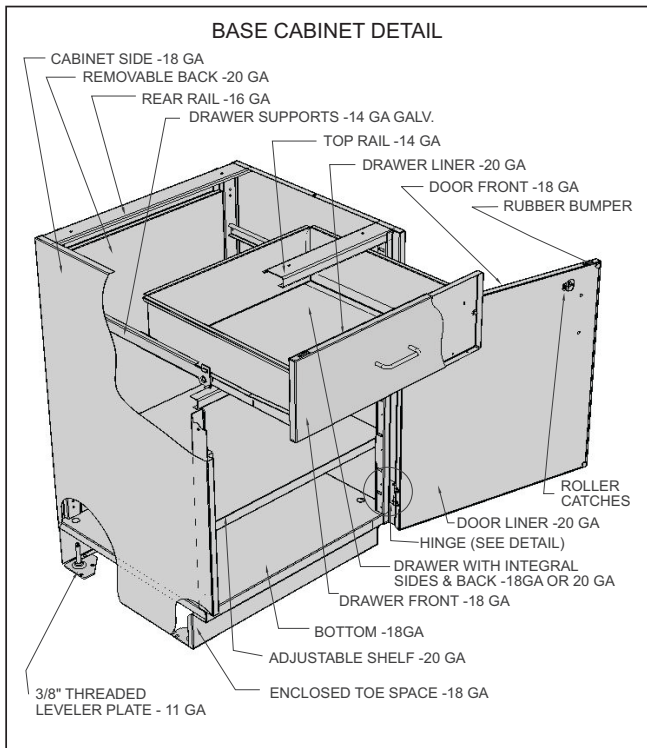
CASEWORK CONSTRUCTION DETAILS AND SPECIFICATIONS

Cabinets

Each cabinet is fabricated from prime quality furniture grade cold rolled or 304-4 stainless steel. All components are die formed, notched, keyed and tightly fitted to form a mechanically 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 galvanized steel bottoms painted to match cabinets.

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.



All cupboard units have full height removable back panels, except for sink cabinets which have 9" height removable back panels to facilitate plumbing. All cabinets have been designed to be vermin resistant. Removable backs are optional on drawer units.

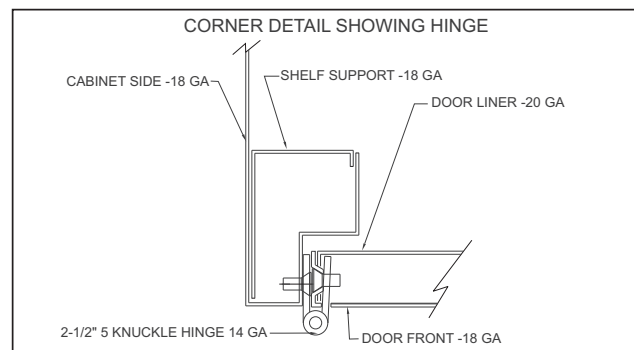
Drawers

Full access drawer bodies are formed with a one piece, fully covered 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.

Table Frames and Apron Panels

Frames are 3-3/4" high formed in a "C" channel shape. Table legs are manufactured from 2" x 2" tubing and are through bolted to the table frame, complete with leveling bolts and PVC boots. All drawers are 15" wide and are suspended similar to standard drawers.

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.

The Sigma Systems™ 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 inch 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.

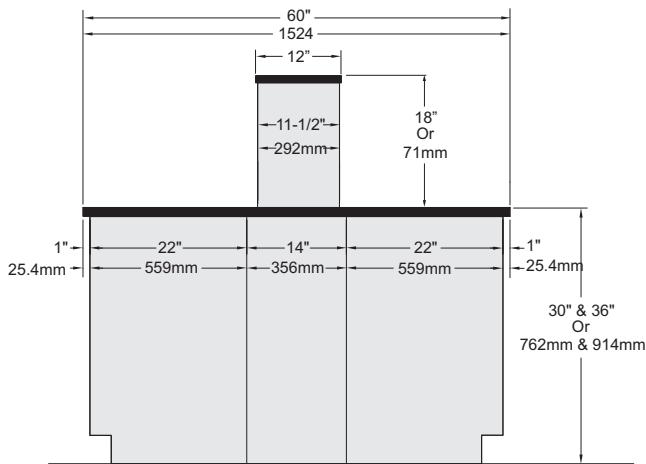
Adhesion Test - A scratch test conducted according to ASTM D2197-86 is conducted to confirm adequate coating adhesion.

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

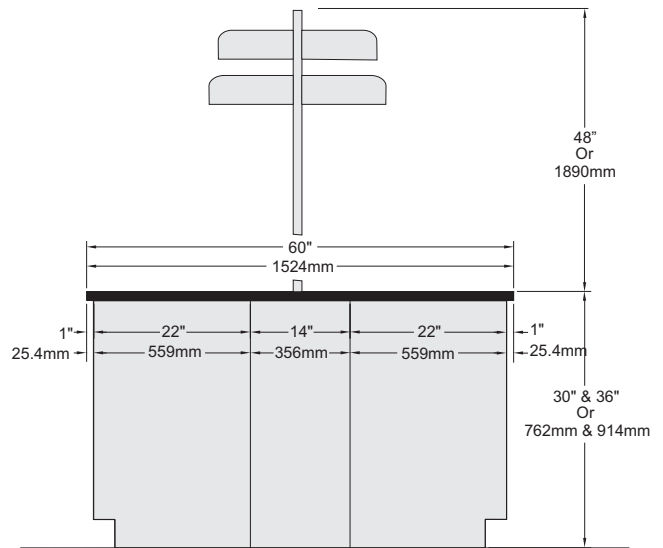
TYPICAL WORK AREA DETAILS

Sigma Systems™

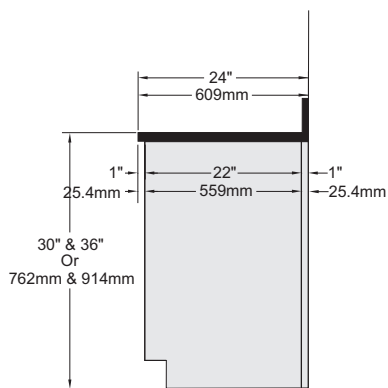
The following details are provided to illustrate how base cabinets, filler panels and countertops combine to construct a laboratory work area.



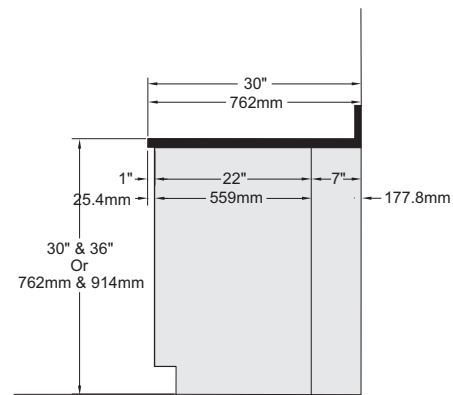
Island type configuration with 60" wide counter top, base cabinets, 14" filler panel and reagent shelf. A large space for services is concealed behind the 14" filler panel.



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.

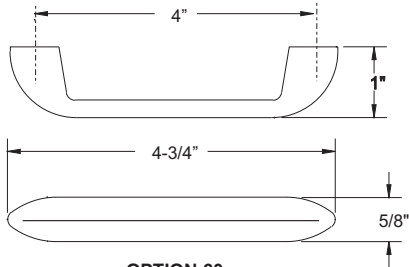


Base cabinet configuration with 30" wide counter top, base cabinet and filler 7" panel. The area covered by the 7" filler panel provides space for required services.

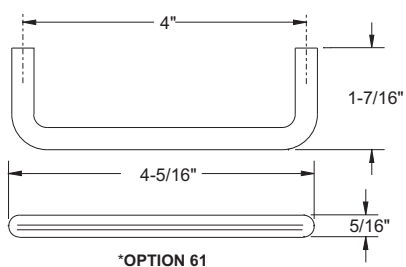
HANDLE AND HINGE OPTIONS

Door/Drawer Pulls

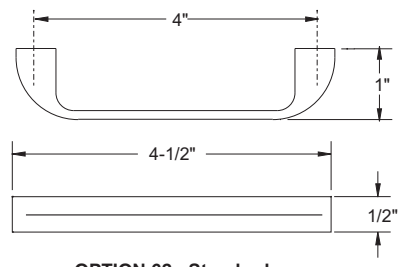
There are several different styles of door/drawer handles that are offered to suit specific customer requirements. Please use the option numbers below to specify the handle of your choice.



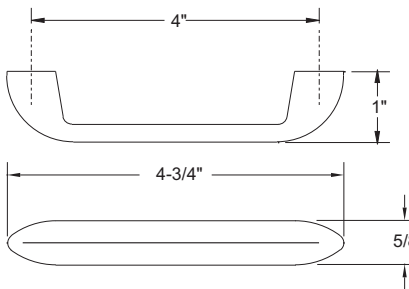
OPTION 60
Black Nylon Pull



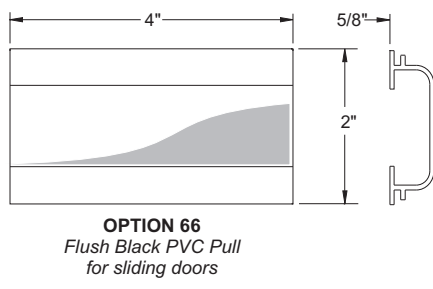
***OPTION 61**
Tubular Stainless Steel Pull
OPTION 68
Aluminum Wire Pull



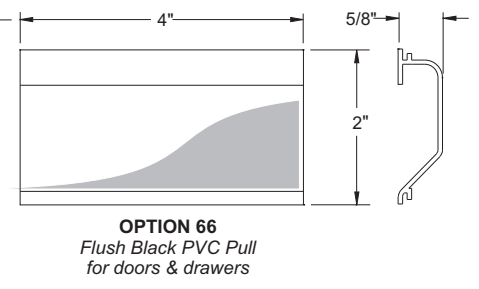
OPTION 62 - Standard
Brushed Aluminum Pull



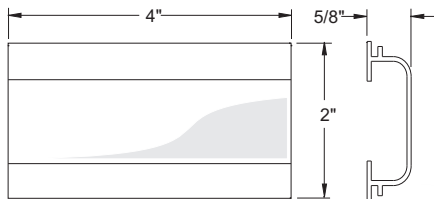
OPTION 63
Chrome Pull



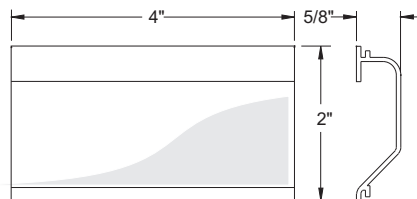
OPTION 66
Flush Black PVC Pull
for sliding doors



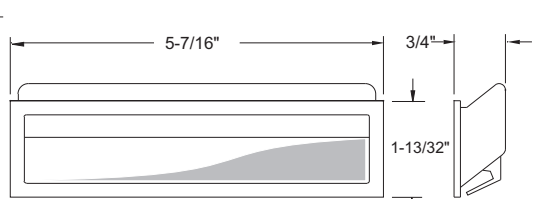
OPTION 66
Flush Black PVC Pull
for doors & drawers



OPTION 65
Flush Aluminum Pull



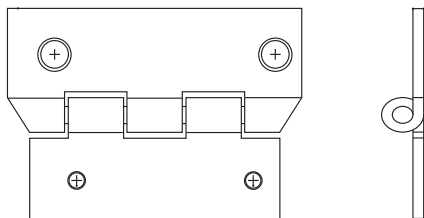
OPTION 65
Flush Aluminum Pull
for doors & drawers



OPTION 64
ABS Flush Pull - Black

Door Hinges

Sigma Systems[™] cabinets come with durable 14 gauge five knuckle hinges. The 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

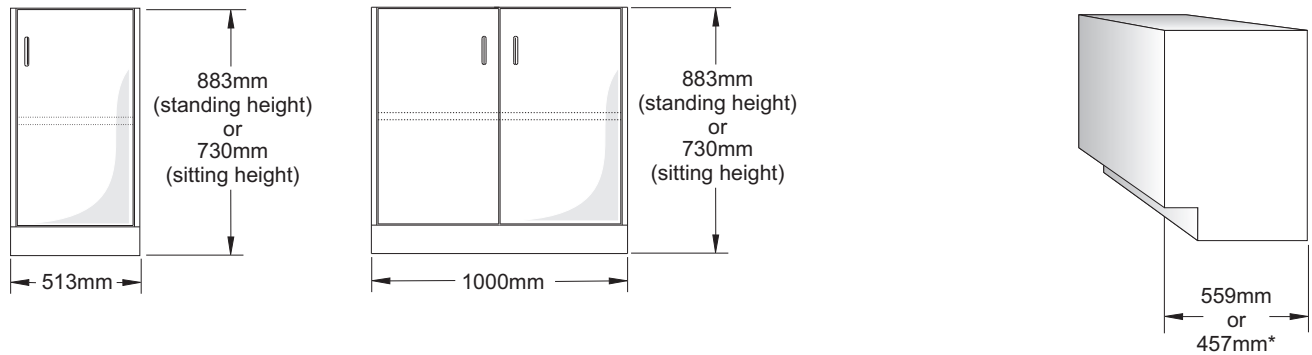
***OPTION 24**
Overlay Hinge (not shown)

*Available at an additional charge

OPTIONAL METRIC SIZES

Base Cabinets

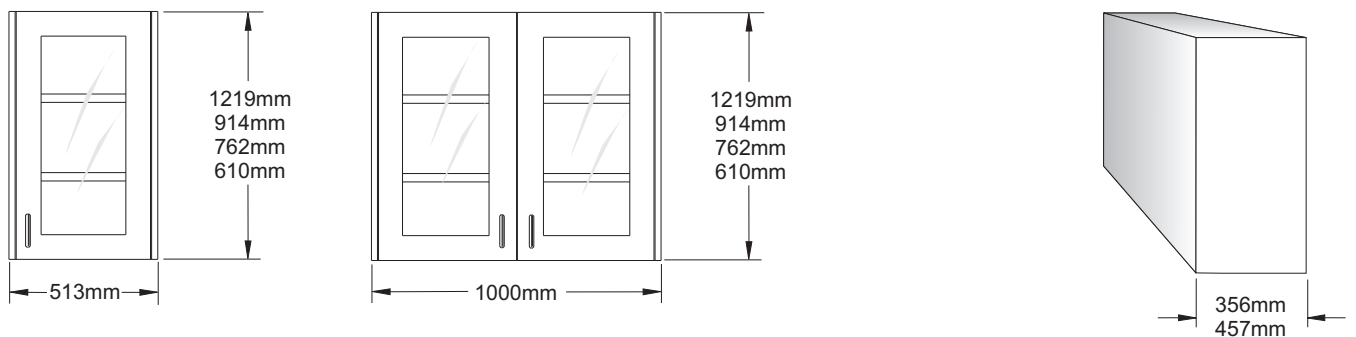
The Sigma Systems™ base cabinets are also available in metric widths of 513mm or 1000mm. The information below indicates the dimensions of metric base cabinets. To order metric base cabinets contact your nearest Mott dealer.



* available on selected specialty cabinets only

Wall Cabinets

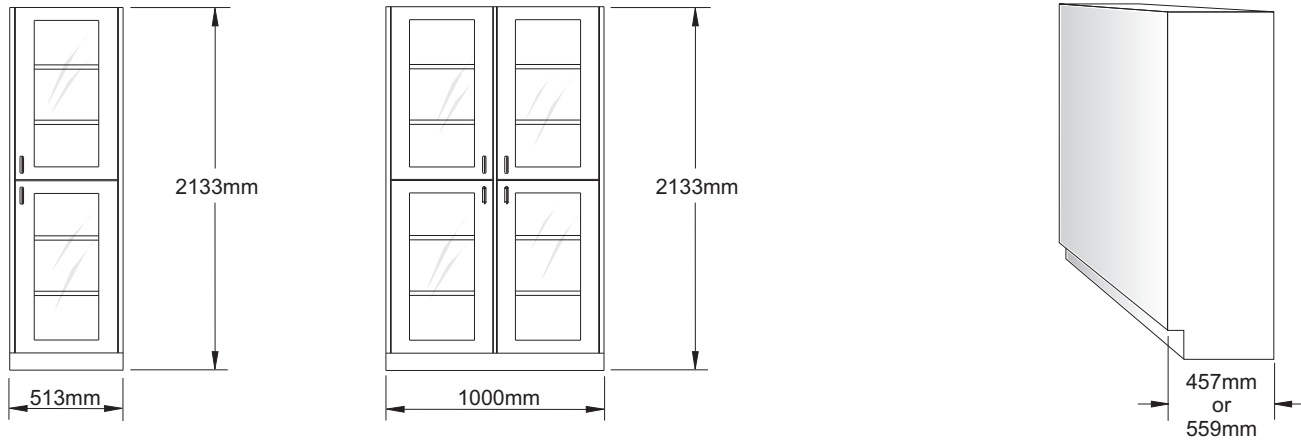
The Sigma Systems™ wall cabinets are also available in metric widths of 513mm or 1000mm. The information below indicates the dimensions of metric wall cabinets. To order metric wall cabinets contact your nearest Mott dealer.



OPTIONAL METRIC SIZES

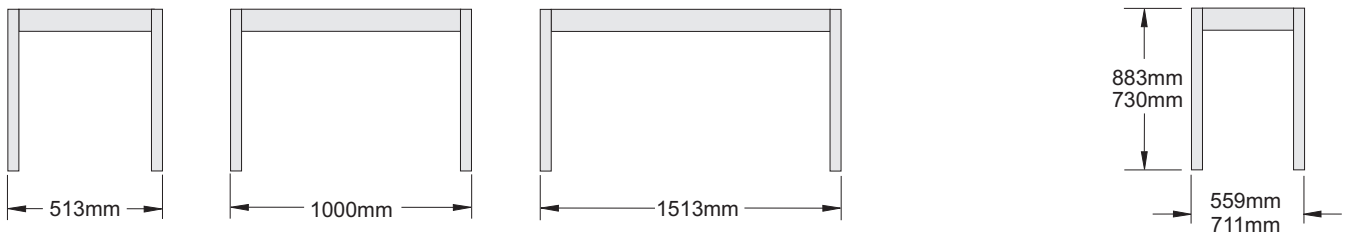
Floor Cabinets

The Sigma Systems™ floor cabinets are also available in metric widths of 513mm or 1000mm. The information below indicates the dimensions of metric floor cabinets. To order metric floor cabinets contact your nearest Mott dealer.



Aprons and Tables

The Sigma Systems™ aprons and tables are also available in metric widths of 513mm, 1000mm and 1513mm. The information below indicates the dimensions of metric aprons and tables. To order metric aprons and tables contact your nearest Mott dealer.



Miscellaneous Items

Sigma Systems™ miscellaneous items such as dust caps, filler panels, etc. are also available in metric widths. To order these items contact your nearest Mott dealer.

OPTIONAL METRIC SIZES

Fume Hoods

Sigma Systems™ fume hoods are also available in metric widths of 1000mm, 1513mm and 2000mm. The information below indicates the dimensions of metric fume hoods. To order metric fume hoods contact your nearest Mott dealer.

