



Plastic Concepts Inc.
"Leading The Nation In Fabrication"

Laboratory And Clean Room Equipment

- I. Fume Hoods**
- II. Laminar Flow Hoods**
- III. Sterile Benches**
- IV. Desiccator Cabinets**
- V. Passthroughs**
- VI. Acid Storage Cabinets**
- VII. Chemical Carts**
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- XII. Casework**
- XIII. General Purpose Fume Hoods**

Plastic Concepts Fume Hood



Description

Plastic Concepts new Fume Hood design is available in lengths of four, six and eight feet with a height of 76" and depth of 32". The hood is normally shipped in two pieces and assembled on site by the customer. Customized sizes are available upon request. The Standard Fume Hood is constructed of stress relieved white polypropylene, an extremely durable and non-corrosive thermoplastic, highly resistant to most acids, solvents, and other corrosives. Polypropylene offers non-conductive properties and easy cleaning as well.

The hoods are designed to have a face velocity between 60 – 100 FPM across the face shield provided the sash is opened to 18”. The air that is pulled from the room into the hood area is exhausted through the front lip to keep the majority of contaminants in the air from contaminating the work area. The base plenum below the work surface is designed to have a velocity of 500 FPM or less to keep large particles and moisture from being air-borne. The rear plenum velocity is designed to be 1000 FPM to keep particles air-borne that have been captured in the base plenum.

Process

- Semiconductor and Microelectronic fabrication and assembly
- Biological (Biotech and Biomedical) and Pharmaceutical applications
- Grinder and sanding operations

Construction

- Main construction of hood is white polypropylene, fully welded, common plenum and a full width welded base cabinet providing secondary containment
- All polypropylene valves, hinges, and plumbing
- Drain plug in base plenum for any spillage of liquids in hood
- Front lip exhaust pull for when sash is fully closed
- Counter balanced adjustable sash, made of acrylic
- Electrical 115v, 15 amps for light. Three prong cord 15’ long
- Internal wiring: 12/3 gauge cord with rubber coating
- Operations manual and test certification

Equipment

- Vapor-proof fluorescent lighting
- Audible alarm monitoring exhaust pull

Options

- Sash available positioning: fixed, or hinged
- Sash materials: PVC, Polycarbonate (Lexan), or Safety Glass
- Digital readout velocity meters
- Automated velocity controller to maintain a constant velocity setting as sash is adjusted
- Amber lighting for photo-resist
- Hood colors: blue, black or combinations of colors
- Static control devices
- G.F.I. receptacles

- Fixtures: serrated hose-cocks for gas, air, vacuum and liquid, N₂ and DI guns
- Glove and side ports
- Perforated work surface

Plastic Concepts Laminar Flow Hood



Description

The Plastic Concepts, Inc. Standard Laminar Flow Hood is constructed of stress relieved 1/2" thick white polypropylene, an extremely durable and non-corrosive thermoplastic, highly resistant to most acids, solvents, and other corrosives. Polypropylene also offers non-conductive properties as well. The hood is designed to operate with a face velocity of 80-120 FPM. The full width plenum with adjustable dampers provides maximum efficiency for fume removal. The base cabinet is fully supported with adjustable levelers for easy installation. Each Plastic Concepts hood comes with an operations manual, including test data and certification, written warranty, and installation instructions.

Process

- Semiconductor and Microelectronic fabrication and assembly
- Biological (Biotech and Biomedical) and Pharmaceutical applications
- Grinder and sanding operations
- Etching, plating, coating, and cleaning applications

Construction:

- Main construction of hood is thermal stick welding that provides a strong, durable and long lasting joint attachment. All edges are chamfered to ensure maximum weld area that will not delaminate.
- All polypropylene valves, hinges, and plumbing

- Vented base cabinet for storage of acids and chemicals. Base cabinet can serve as secondary containment.
- Lip exhaust is designed to provide air for the hood even in the event the sash is fully closed.
- Counter balanced adjustable sash, made of acrylic.
- Electrical, 115v, 15 amps for lights and blowers.
- Internal wiring: 12/3 gauge cord with rubber coating
- Fume hood supported by a painted steel frame with stainless steel leveling feet
- Operation manual and test certification

Equipment:

- Variable speed blower
- Vapor-proof fluorescent lighting
- HEPA Filter, 99.99% efficient on .3 microns
- Pre-filter, large contaminant particle removal
- Magnehelic air pressure gauge to monitor HEPA filter replacement
- Audible alarm monitoring exhaust pull

Options:

- Sash available positioning: fixed or hinged
- Sash materials: PVC, Polycarbonate (Lexan) or Safety Glass
- Digital readout velocity meters
- Automated velocity controller to maintain a constant velocity setting as sash is adjusted
- Amber lighting for photo-resist
- Hood colors: blue, black or combinations of colors
- Static control devices
- G.F.I. receptacles
- Fixtures: serrate cocks for gas, air, vacuum and liquid, N2 and DI guns
- Glove and side ports
- Casters on the base for easy re-location.



Plastic Concepts Sterile Benches



Description

Sterile Benches are used for Semiconductor Testing, Electronics, Clinical Laboratories, and Hospitals. These benches use a HEPA filter which removes 99.99% of the particles in the air that are larger than 0.3 micron. They also exceed the class 100 clean work station requirements of the Federal Standard 209D and Air Force T.O. 00-25-203. Maintaining a flow of 90 fpm + 20% at static pressures of 0.6 to 1.2" of water, we use a solid-state-speed controller for adjusting the rate of flow. The pre-HEPA filter is made of washable, easy -to- remove polyurethane which lengthens the life of the HEPA filter. The motor is energy efficient, drawing only 5 amps with its 1/3 horsepower motor. A variety of fluorescent lighting is also available. If a custom size is required, please call and we will help design the correct sterile bench for your needs.

Construction:

- Constructed of white polypropylene.
- Electrical 115v, 15 amps for light and blower. Three prong cord 15' long
- Internal wiring: 12/3 gauge cord with rubber coating
- The clean bench is supported by a painted steel frame with stainless steel leveling feet
- Operation manual and test certification.

Equipment:

- Variable speed blower
- Vapor-proof fluorescent lighting

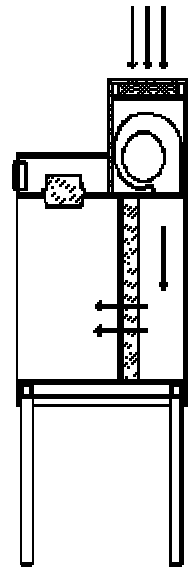
- HEPA Filter, 99.99% efficient on .3 microns
- Pre-filter, large contaminant particle removal
- Magnehelic air pressure gauge to monitor HEPA filter replacement
- Audible alarm monitoring exhaust pull

Options:

- Amber lighting for photo-resist
- Hood colors: blue, black or combinations of colors
- Static control devices
- G.F.I. receptacles

Fixtures:

- Serrate cocks for gas, air, vacuum and liquid, N2 and DI guns



Plastic Concepts Desiccator Cabinets



Description

The Standard Plastic Concepts, Inc. Desiccator Cabinet is constructed of 1/4" thick clear acrylic with fully bonded seams, 3/8" thick doors and provides an air tight environment. The standard cabinet is available with the following options :

- Static dissipative acrylic
- Amber acrylic construction
- Clear PVC construction
- Gaskets for the doors
- Adjustable shelves
- Air flow monitor
- Low air alarm

- Humidity monitor

The Standard Plastic Concepts Desiccator Cabinet is available in the sizes shown and custom configurations are also available upon request.

To obtain a quotation, please provide the following information:

- Width / Depth / Height
- Number of Doors
- Number of Tiers
- Number of Partitions
- Number of Adjustable Shelves per Compartment

WxDxH	Number of Shelves
12" x 12" x 12"	1
12" x 12" x 24"	3
18" x 18" x 18"	2
24" x 18" x 24"	3
36" x 18" x 36"	5

NOTE: All desiccator cabinets can be fabricated with pass-through capability.

Plastic Concepts Passthroughs



Description

The Plastic Concepts, Inc. Cleanroom Pass-through is designed to minimize contaminants within the controlled environment. Pass-throughs are made of 1/2" thick stress relieved polypropylene, a highly durable and non-corrosive thermoplastic, highly resistant to most acids, solvents and other corrosives. The Passthrough comes standard with 1/2" thick clear acrylic doors giving the user full view of the pass-through. The compression latches along with gaskets, provide easy operation and maximum pressure to ensure a proper seal in the chamber. The Plastic Concepts Pass-through is available in many sizes and custom sizes are available upon request.

Options:

- Customized size
- Mechanical interlock
- Air purge connections

Specify the dimensions of the fixed frame upon ordering units.



Plastic Concepts Acid Storage Cabinets



Equipment:

- Audible alarm monitoring exhaust pull

Options:

- Cabinet colors: blue, black or combinations of colors

Plastic Concepts Chemical Cart



Description

The Acid/Chemical Storage Cart is designed to minimize accidental spills of hazardous material with its all into one drainage system and allow safe cleaning of collected materials. Made of stress relieved polypropylene, a highly durable and non-corrosive thermoplastic, highly resistant to most acids, solvents and other corrosives. The cart comes standard with a full support frame and mounted rubber wheel casters. The cart can hold 24 one-gallon bottles and has a sealed storage compartment for storage of smaller items such as gloves, glasses etc. The cart is available with a non-slip locking foot brake which prevents the cart from rolling during loading and unloading. The Acid / Chemical Cart is available in the sizes shown and custom sizes are available upon request.

Construction:

- Main construction of Cart is white polypropylene, fully welded, a full width, welded base lip provides secondary containment.
- All polypropylene handles, latches, and hinges
- Drain plug in base to drain any spillage of liquids in the cart

Options:

- Locking brake casters
- Clear Acrylic or PVC for visibility into storage compartment.
- Lockable access doors.
- Internal segregation of the compartments and drain manifolds.

WxDxH	Number of Bottles
28" x 25" x 36"	12
28" x 25" x 48"	24
42" x 25" x 48"	36



Plastic Concepts Computer Enclosures



Description

This Industrial Computer Enclosure protects your computer in any hazardous industrial environment. Whether it is dust, airborne particles, wet, or a corrosive acid area, your computer will be continuously protected for an indefinite amount of time. The enclosures are constructed of white polypropylene that will withstand all of your vigorous environments. As an option, casters can be added to the stationary cabinet for mobility. The monitor has a separate compartment for continuous protection, while the keyboard has a roll out drawer for use. The base cabinet stores your CPU with an additional shelf for storage.

Construction:

- Main construction of enclosure is white polypropylene.
- All stainless steel hinges and latches
- Dimensions: 26" Wide x 22" Deep x 62" High
- Operation manual and test certification

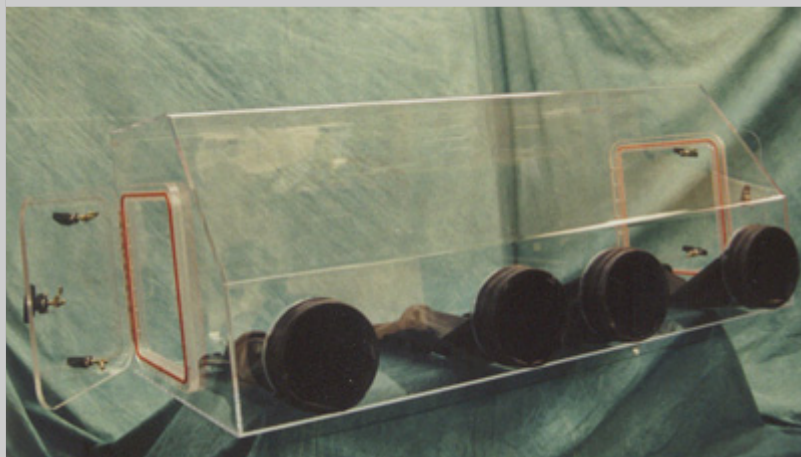
Equipment:

- Hinged viewing window for easy access to the monitor
- Sliding keyboard drawer for concealing the input devices.

Options:

- Automated velocity controller to maintain a constant velocity setting as sash is adjusted
- Amber lighting for photo-resist
- Available Colors: white, blue, black or a combination.
- Static control devices
- G.F.I. receptacles
- Fixtures: serrate cocks for gas, air, vacuum and liquid, N2 and DI guns
- Casters on the base for easy re-location.

Plastic Concepts Glove Boxes



Description

The Standard Plastic Concepts Glove Box is fabricated from 1/4" clear acrylic. All seams are either heat bent or bonded to ensure an air tight seal. The Glove Box comes with straight sleeves and replaceable latex gloves which can be changed to fit the user. The Glove Box has a pass-through on the right side for bringing in new work materials while purging the chamber. All hardware is stainless steel for corrosion resistance and long lasting durability. The Glove Box also comes with a 1/4" NPT inlet for inert gases. The Glove Box is available with these options:

- Static dissipative acrylic
- Amber acrylic
- Clear PVC
- Humidity monitor exterior lighting
- Hinged cover

WxDxH	Number of Gloves	Weight (lbs.)
48" x 30" x 18"	2	100
60" x 30" x 18"	2	125
72" x 30" x 18"	4	175
96" x 30" x 18"	4	225

The Standard Plastic Concepts, Inc. Glove Box is available in the sizes shown with either two or four gloves. Custom configurations are also available upon request.

Plastic Concepts Polypropylene Tables



Description

The Polypropylene Table is constructed of stress relieved 1/2" thick white polypropylene, an extremely durable and non-corrosive thermoplastic, highly resistant to most acids, solvents, and other corrosives, making these tables ideal for both cleanroom and hazardous location use, while offering non-conductive properties and easy cleaning as well. All outside edges have radii to eliminate any sharp edges. The table has a 1/2" lip on all sides for spill containment and can be equipped with a drain fitting for wet bench applications. The table comes with 4 stainless steel levelers that give the table a max. height of 37" and a min. height of 35". Casters can be easily installed on the table making it a rolling cart or mobile work surface. The table is also ideal for use as the base cabinet for a portable fume hood or laminar flow hood, which are also available in polypropylene and in corresponding sizes.

Applications:

- Cleanroom and hazardous environments
- Biological (Biotech and Biomedical) and Pharmaceutical applications
- Hazardous i.e., any area that would normally require the use of Stainless Steel or Fiberglass.

Construction:

- Main construction of table is white polypropylene, fully welded and horizontally supported.

- 1/2" deep spill containment lip.

Equipment:

- Stainless Steel levelers

Options:

- UHMW polyethylene
- Heavy duty style (300 lb. load)
- Break down design with bolt on legs and shelf
- Under table drawers
- Sinks and/or table top drain
- Table colors: blue, black or combinations of colors.
- Fixtures: serrated hose-cocks for gas, air, vacuum and liquid, N2 and DI guns

WxD	Weight (lbs.)
48" x 30"	150
60" x 30"	175
72" x 30"	200
96" x 30"	225



Plastic Concepts Gowning Benches



Description

The Polypropylene Gowning Bench is constructed of stress relieved 1/2" thick white polypropylene, an extremely durable and non-corrosive thermoplastic, highly resistant to most acids, solvents, and other corrosives, making these tables ideal for both cleanroom and hazardous location use, while offering non-conductive properties and easy cleaning as well. All outside edges have radii to eliminate any sharp edges. The table has a fully supported shelf for bootie storage. The table comes with 4 stainless steel levelers that give the table a max. height of 20" and a min. height of 18". The Polypropylene Gowning Bench is available in the sizes shown and custom sizes are available upon request.

Applications:

- Cleanroom and hazardous environments
- Biological (Biotech and Biomedical) and Pharmaceutical applications
- Hazardous i.e., any area that would normally require the use of Stainless Steel or Fiberglass.

Construction:

- Main construction of table is white polypropylene, fully welded and horizontally supported.

Equipment:

- Stainless Steel levelers

Options:

- UHMW polyethylene
- Heavy duty style (300 lb. load)
- Break down design with bolt on legs and shelf
- Under table drawers
- Table colors: blue, black or combinations of colors
- Fixtures: serrated hose-cocks for gas, air, vacuum and liquid, N2 and DI guns

LxWxH
36" x 16" x 18"
48" x 16" x 18"
60" x 16" x 18"
72" x 16" x 18"

Plastic Concepts Polypropylene Casework



Description

Plastic Concepts, Inc.'s Polypropylene Casework is constructed of 1/2" and 3/8" thick stress relieved white polypropylene, all seams are fully welded for maximum strength and durability. Polypropylene is an extremely durable and non-corrosive material that cleans easily and does not stain. Polypropylene is a solid surface and maintains its appearance and color. Plastic Concepts, Inc. casework is equipped with quality components, from all stainless steel full extension drawer glides to polypropylene hinges. All edges are rounded for a safe and corner free work environment. The cabinets can be used individually or in series with other cabinets giving the user the ability to choose from the available styles to create a lab or Cleanroom to suit their own needs. Please see the attached charts for sizes and pricing. If there is a size or style that is not represented

drawings can be provided upon request. Modifications or custom designs are also available upon request.

To obtain a customized quotation, please contact PCI technical representatives with the following model number information:

Base Model Code:

WC – Wall Cabinet
BC – Base Cabinet with Drawer and Door
BD – Base Cabinet with Door
BE – Base Cabinet with Drawers
WS – Wall Shelves
WP – Wall Pass Thru
CL – Closet
OO – Other

Width / Depth / Height:

XX - YY - ZZ

Modifiers:

SDH – Solid Door Hinged
CDH – Clear Door Hinged
SDS – Solid Door Slides
CDS – Clear Door Slides
FS – Fixed Shelves
AS – Adjustable Shelves
DR – Drawers
TT – Tiers
PA – Partitions
O1 – Other
CE – Blind Corner Extensions

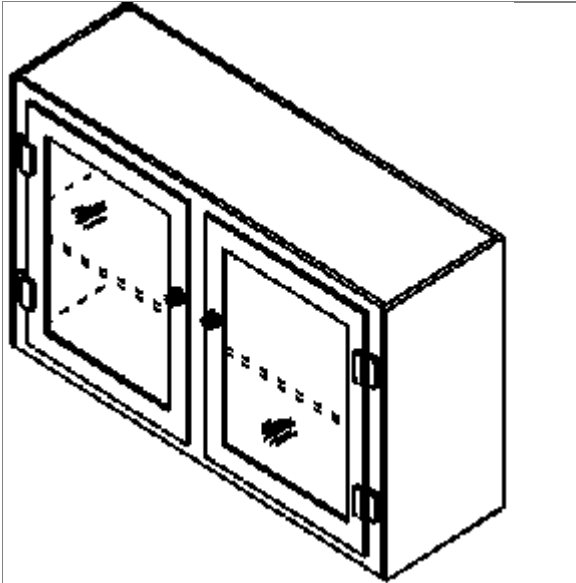
Plastic Concepts, Inc.'s upper casework is available standard with the following optional features:

- Clear acrylic sliding doors
- Hinged doors
- Two adjustable shelves
- Open shelf units
- Full wall storage cabinets
- Blind corners
- Security cabinets (key lock)
- Peg board back panels
- Internal dividers

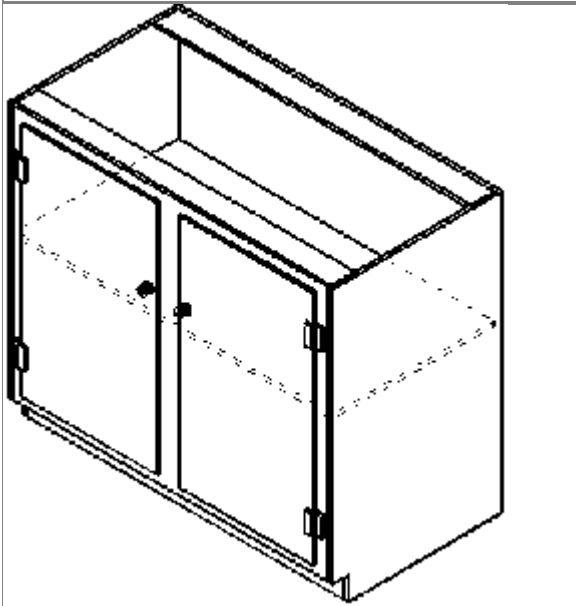
Plastic Concepts Polypropylene Casework and storage units are designed to meet or exceed a wide variety of uses and environments. PCI can design or modify any casework to maximize the use of valuable space.

PCI carries a wide variety of all plastic fixtures in polypropylene, PVDF, and PVC including:

- Goosenecks
- Deck and wall mounted gas turrets
- Needle valves
- DI and N2 spray guns aspirators

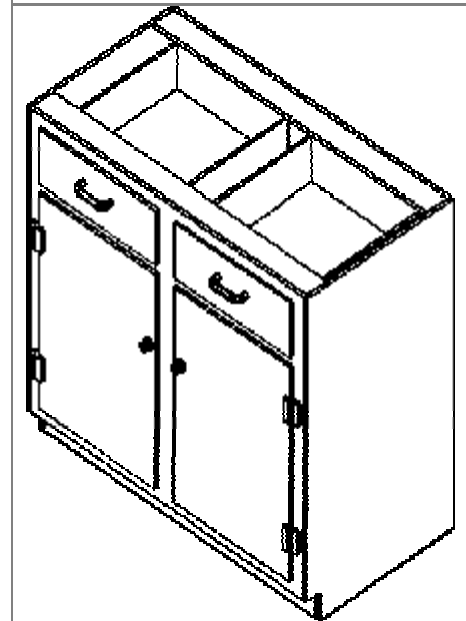
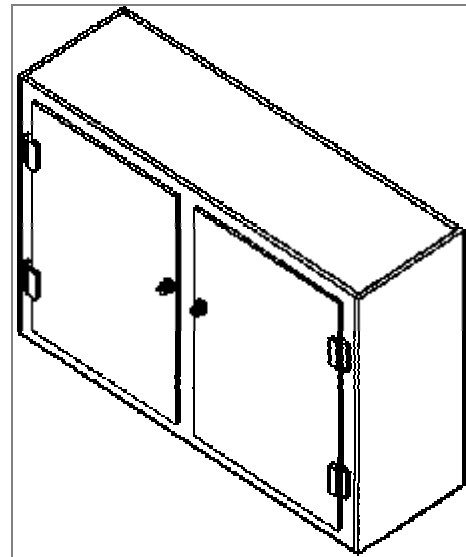


Standard 4-foot Wall Cabinet Casework

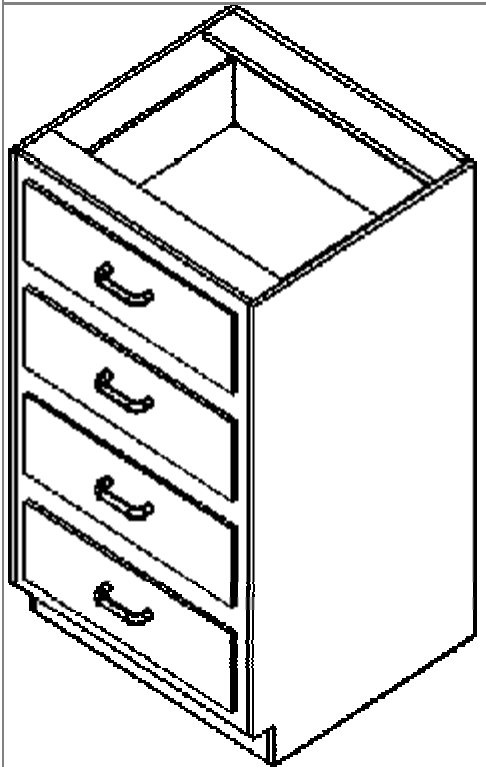
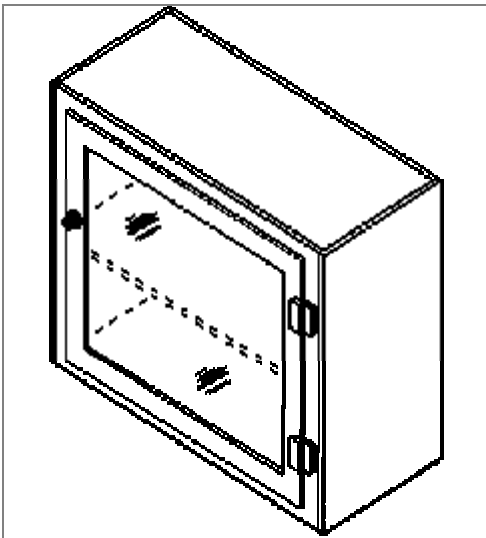


Standard 4-foot Base Cabinet Casework

Description	W x H x D
base cabinet drawer/door	18" x 30" x 22"
	24" x 30" x 22"
	36" x 30" x 22"
	48" x 30" x 22"
base cabinet three drawer	18" x 30" x 22"
	24" x 30" x 22"
	36" x 30" x 22"
	48" x 30" x 22"
base cabinet four drawer	18" x 30" x 22"
	24" x 30" x 22"
	36" x 30" x 22"
	48" x 30" x 22"
base cabinet acid storage	18" x 30" x 22"
	24" x 30" x 22"
	36" x 30" x 22"
base cabinet sink unit	18" x 30" x 22"
	24" x 30" x 22"
	36" x 30" x 22"
base cabinet sink w/ shelf	18" x 30" x 22"
	24" x 30" x 22"
	36" x 30" x 22"
base cabinet blind corner	48" x 30" x 22"
	55" x 30" x 22"
	65" x 30" x 22"
base cabinet knee space	18" x 30" x 22"
	24" x 30" x 22"
	36" x 30" x 22"



Standard 4-foot Casework



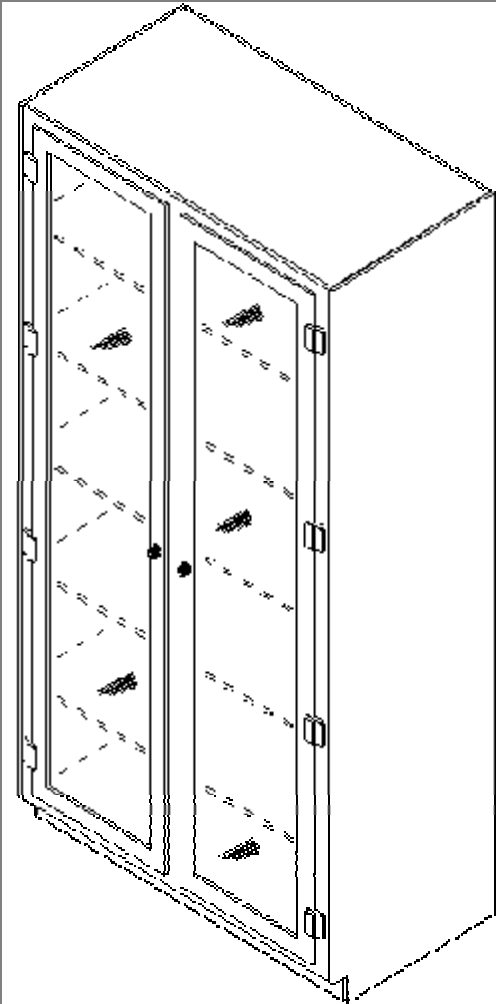
Standard 2-foot Casework

Description	W x H x D
upper cabinet clear hinged door	18" x 30" x 13"
	24" x 30" x 13"
	36" x 30" x 13"
	48" x 30" x 13"
upper cabinet solid hinged door	18" x 30" x 13"

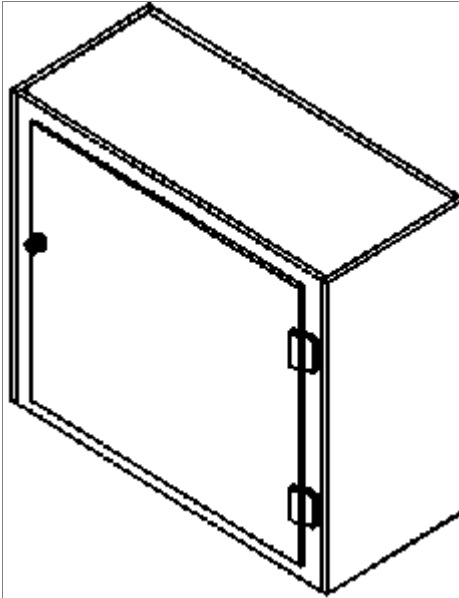
	24" x 30" x 13"
	36" x 30" x 13"
	48" x 30" x 13"
upper cabinet clear sliding doors	18" x 30" x 13"
	24" x 30" x 13"
	36" x 30" x 13"
	48" x 30" x 13"
upper cabinet solid sliding doors	18" x 30" x 13"
	24" x 30" x 13"
	36" x 30" x 13"
	48" x 30" x 13"
upper cabinet pass thru sliding clear doors	18" x 30" x 13"
	24" x 30" x 13"
	36" x 30" x 13"
	48" x 30" x 13"
upper cabinet pass thru hinged clear doors	18" x 30" x 13"
	24" x 30" x 13"
	36" x 30" x 13"
	48" x 30" x 13"
upper cabinet blind corner hinged door	18" x 30" x 13"
	24" x 30" x 13"
	36" x 30" x 13"
	48" x 30" x 13"
upper cabinet open shelves	18" x 30" x 13"
	24" x 30" x 13"
	36" x 30" x 13"

Description	W x H x D
wall cabinet clear hinged door	30" 84" 22"
	36" 84" 22"
	48" 84" 22"
	48" 30" 13"
	30" 84" 22"
	36" 84" 22"
	48" 84" 22"

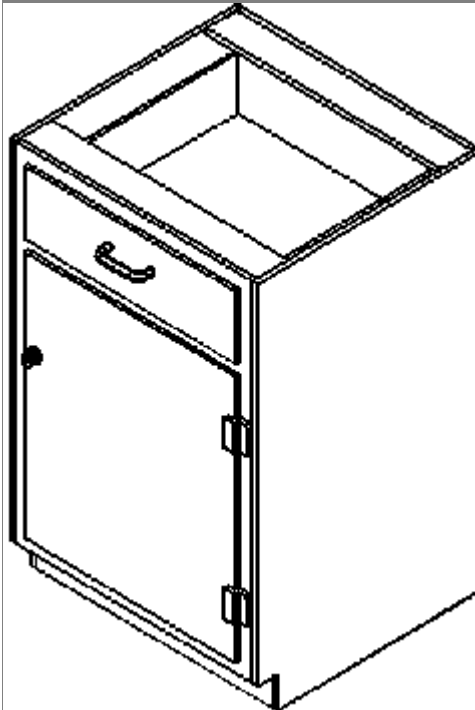
Counter Top with
3/4" polypropylene white
3/4" polypropylene black
1" polypropylene white
1" polypropylene black
3/4" polyethylene white
3/4" polyethylene black
1" polyethylene white



Standard 4-foot Closet Casework



Standard 2-foot Wall Cabinet Casework



Standard 2-foot Base Cabinet Casework

Plastic Concepts General Purpose Fume Hood



Description

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The hoods are designed to have a face velocity between 60 – 100 FPM across the face shield provided the sash is opened to 18". The air that is pulled from the room into the hood area is exhausted through the front lip to keep the majority of contaminants in the air from contaminating the work area. The base plenum below the work surface is designed to have a velocity of 500 FPM or less to keep large particles and moisture from being air-borne. The rear plenum velocity is designed to be 1000 FPM to keep particles air-borne that have been captured in the base plenum.

Process

- Semiconductor and Microelectronic fabrication and assembly
- Biological (Biotech and Biomedical) and Pharmaceutical applications

- Grinder and sanding operations

Construction

- Main construction of hood is white polypropylene, fully welded, common plenum and a full width welded base cabinet providing secondary containment
- All polypropylene valves, hinges, and plumbing
- Drain plug in base plenum for any spillage of liquids in hood
- Front lip exhaust pull for when sash is fully closed
- Counter balanced adjustable sash, made of acrylic
- Electrical 115v, 15 amps for light. Three prong cord 15' long
- Internal wiring: 12/3 gauge cord with rubber coating
- Operations manual and test certification

Equipment

- Vapor-proof fluorescent lighting
- Audible alarm monitoring exhaust pull

Options

- Sash available positioning: fixed, or hinged
- Sash materials: PVC, Polycarbonate (Lexan), or Safety Glass
- Digital readout velocity meters
- Automated velocity controller to maintain a constant velocity setting as sash is adjusted
- Amber lighting for photo-resist
- Hood colors: blue, black or combinations of colors
- Static control devices
- G.F.I. receptacles
- Fixtures: serrated hose-cocks for gas, air, vacuum and liquid, N2 and DI guns
- Glove and side ports
- Perforated work surface