

# AIRBLOCK<sup>TM</sup> SOFTWALL SYSTEMS

Cleanroom Softwall Curtains,  
Dividers and Strip Doors



**SIMPLEX<sup>TM</sup>**  
ISOLATION SYSTEMS  
A DIVISION OF SIMPLEX STRIP DOORS, INC.

## The Quality Difference

Simplex Strip Doors was founded in 1979 with one simple goal: To provide the finest quality strip door system on the market. We achieved this by setting new standards for the industry. At Simplex we understand the problems associated with today's cleanrooms, from ESD to outgassing. Simplex uses the finest formulas available, engineered to perform in today's demanding and high tech cleanrooms. Our minimum .040 thick vinyl curtains give you superior tear resistance and blur-free visibility. Simplex offers a multitude of mounting systems that are designed to install quickly, and to be an integral and functioning part of your cleanroom. Simplex's commitment to quality is only equaled by our commitment to service. We ship most orders within 48 hours. Simplex specializes in custom design and fabrication of isolation systems for your cleanroom needs.

Thank you for choosing Simplex - the quality difference with value.



## AirBlock Softwall Systems - the advantages are clear.

### Largest Selection of High Quality Materials.

- Our softwalls come in a wide selection of colors, thicknesses and properties.



### Sealed Corners

- Wraparound seals eliminate air loss or particle penetration at the corners. Our thicker vinyls require no hems or sash weights, and provide systems that are cleaner looking, easily adaptable, and longer lasting.



### Mounting Systems

- Simplex offers a variety of patented mounting systems, all engineered for easy installation and maximum performance in your cleanroom.



### RF Welded Vinyl Seams

- Simplex uses RF welding on all seams and attachments. Our seals provide a permanent bond that is stronger and cleaner than sewing. Sewing vinyl seams perforates and weakens the material, and frequent cleaning only accelerates this process. The result is premature product failure and a source of contamination.



### Entryways

- Simplex offers several types of entrances/exits. By alternating strips of clear vinyl with frosted vinyl, we eliminate both sticking and air gaps. This feature also creates entrances that are easier to walk through.



To order and for more information call toll-free 800-854-7951



AirBlock Systems are suitable for all classes of cleanrooms and for all levels of process isolation. They increase product yields, reduce the possibility of cross contamination and improve employee safety.

## AirBlock Softwalls



### Features:

AirBlock softwalls are constructed from four-foot wide sheets of vinyl, RF welded to form either solid walls or movable curtains. AirBlock softwalls can be customized to virtually any size or shape. They are especially suitable for enclosing portable frame systems, or improving laminar flow areas above workspaces. Softwalls are used to further divide existing cleanrooms, effectively creating cleaner inner zones.

**Thicknesses:** 40 to 80 mil.

**Compounds:** Standard vinyl, static dissipative vinyl, non-outgassing static dissipative polyurethane, nylon non-outgassing film, or Class 1 fire rated reinforced vinyl fabric. (Note: Not all materials available in all colors. Contact factory for availability.)

**Colors:** Clear, frosted, amber tint, smoke tint, white, blue, grey and black.

**Styles:** — Fixed, solid softwalls. — Bi-folding curtains. — Sliding panels. — Insulated panels.

## AirBlock Materials

Simplex uses only the finest quality materials available. These materials have been specifically formulated and have been fully tested to meet Simplex's highest standards. This guarantees that you will receive the best vinyl product on the market.

### Polysim X1200 Non-outgassing, Static Dissipative

**Polyurethane:** Polysim X1200 is made from an inherently static dissipative polyurethane that provides permanent, non-humidity dependent ESD protection for sensitive manufacturing conditions such as computer disk drives, microelectronics, optics and pharmaceuticals. There is no plasticizer used in Polysim, making the volatile condensable contaminants extremely low. Because Polysim is an alloy using high molecular weight materials, the static dissipation properties are permanent. No particulation is found even after repeated washings with water and mild detergents.

**Static Dissipative Vinyl:** Our ESD vinyl is manufactured with permanent built-in inhibitors. Unlike topical coatings, these inhibitors will not wear off and will last for the life of the curtain. Test results show surface resistivity of  $1.8 \times 10^{10}$  ohm/cm (ambient, 50% R. H.) per ASTM D257.

**Standard Cleanroom Grade Vinyl:** Our standard vinyl is fire retardant and is low outgassing. For complete test results, consult your Simplex sales representative.

**Thicknesses:** 40, 60, 80, 120 and 160 mil.

**Colors:** Clear, frosted, white, amber tint, smoke tint, blue, grey, black and tan.

**Reinforced Vinyl Fabric:** Available exclusively from Simplex, this is the only material currently available that will pass the ASTM E-84 flame and smoke test for Class 1 rating. Available in standard grade only.

**Thickness:** 18 oz. (25 mil).

**Colors:** Translucent, white, blue, red, yellow, grey and black.

**Tested for Safety and Reliability:** All Simplex softwall materials are fully tested. Test results are available for fire retardancy, ESD, out-gassing, sound abatement, chemical resistability and light transmission. Contact the factory for complete test results on the material required.

## AirBlock Strip Systems

AirBlock Strip Systems consist of overlapping individual strips, ideal for dividing cleanrooms, enclosing portable frame systems, conveyor openings or doorways where easy access is required. Simplex has developed patented mountings for fast installation of strip systems. The individual strips are designed to hang straight and maintain their overlaps. Our optional alternating clear and frosted non-stick design makes the Simplex system the easiest to walk through. This feature also prevents gaps which causes air loss.

**Thickness:** 40 to 160 mil.

**Compounds:** Standard vinyl, static dissipative vinyl, non-outgassing static dissipative polyurethane, nylon non-outgassing film.

**Colors:** Clear, frosted, amber tint, smoke tint, white, blue, grey and black.

**Styles:** — Fixed, hanging doors. — Bi-folding curtains.  
— Sliding strip sections. — Insulated curtains.

**NOTE:** Not all colors and formulas are available in every thickness. Consult your Simplex representative for availability.



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## AirBlock Insulated Softwalls and Strip Systems

### Sound Reduction with SoundBlock™

SoundBlock laminated curtains from Simplex are the only insulated curtains suitable for cleanroom use, and yet are semi-transparent so that you can see through and ensure worker safety. The vinyl-laminated design provides a highly effective sound curtain. At higher frequencies you can achieve as much as a 48-decibel reduction.

### Insulated for Temperature Control

SoundBlock is also effective for temperature control and can be ordered with a foil reflective insert that acts as a radiant heat barrier. For specific testing information, consult the factory.



## AirBlock Curtains

### AirBlock Bi-Folding Curtains

Simplex bi-folding curtain systems give you the added versatility of pulling the curtain dividers out of the way for either maintenance or equipment removal. All curtains have reinforced upper corners and heat-sealed, beveled edges. Bi-folding curtains come in solid or strip form. Choose from anodized aluminum, galvanized or stainless steel track. Options include various thicknesses and materials and a choice of magnetic or Dual Lock Velcro closures. Heat sealed pleats are available to allow the curtain to fold to a compact size when space is at a minimum.



### Light Blocking Curtains

These specially designed softwall and curtain systems are popular for enclosing or dividing areas for special processes, such as laser functions, photo lithography and use in other light sensitive work areas. Simplex's opaque black vinyl blocks out 100% of the light transfer. The matt finish reduces light refraction. Curtains are also available with foil inserts for use with more powerful lasers.



Simplex amber tinted curtains filter out various degrees of blue, yellow and harmful ultra-violet light. Simplex .080 mil. amber curtains are fully certified for all types of welding applications.

Thickness: 40 to 80 mil.

Softwall width: Any size

Strip widths: 8" to 48"

Colors: Black, amber tint, white, blue, tan, grey.

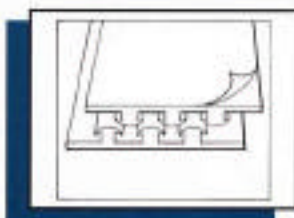
Styles: Solid softwall, bi-folding curtains, strips, insulated and roll-up curtains.

## Closures and Fastening Options



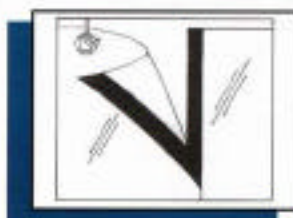
### Dual Lock Velcro® —

For sealing curtains to walls, benches or overlap areas, Simplex offers non-particulating, clear 3M Dual-Lock Velcro® with plastidizer-resistant adhesive.



### Ribbon Lock —

Opposing pieces of molded, interlocking vinyl come together easily for a solid, almost airtight seal. They come apart just as quickly.



### Flexible Magnet Strip Self-Closures —

Quality, flexible, chemical resistant magnet strips are ideal for your custom closure needs.

To order and for more information call toll-free **800-854-7951**



## Simplex Makes the Difference!

What sets Simplex apart? Just about everything we do, from designs to materials to applications. AirBlock Softwall Systems from Simplex feature a selection of innovative mounting options that allow you to customize your cleanroom quickly and efficiently, as your needs change.

### Simplex Mountings



Flatwall Mounting for mounting on frames or vertical surfaces.



In-Jamb Ceiling Mounting for mounting under headers, frames or on horizontal surfaces.



Suspended T-Bar Mounting for mounting onto existing 1", 1-1/2" or 2" suspended t-bar ceilings.



BI-Folding Curtain Mounting available in anodized aluminum, galvanized or stainless steel.

Simplex anodized aluminum mounting systems are designed to be an integral part of your cleanroom. Our two piece hookbead mounting tracks make installation of even large softwalls simple. Our exclusive t-bar clip design allows you to attach to your existing t-grid ceiling without any drilling. This allows you to easily change configurations without damage to your expensive cleanroom ceiling system. Options include epoxy powder coating or anodizing in colors to match your equipment or decor.

The innovative two-piece hookbead mounting system installs in minutes to any surface. All softwalls and strips come with the bonded hookbead. To install you simply hook the panels onto the track. Installation or replacement of the vinyl can be done from the front or by sliding the panels into or out of the track.



1. Mount the rear track. Hardware is provided for attachment to virtually any surface.



2. Unroll your new softwall panels and hook into place. Overlaps are automatic and strips are perfectly aligned every time.



3. Attach front plate with machine screws provided. Your installation is complete.

### Flex Track Mounting System

The Flex Track mounting system from Simplex is a sleek, white, one-piece mounting track, fashioned from rigid PVC material and incorporates flexible hinge and bottom flanges. Mounting track, hinges and flange are extruded as one piece. The non-corrosive design, with no exterior mounting screws, eliminates exterior crevices where contamination can accumulate. Flex Track snaps open and snaps shut again and again for quick assembly and disassembly. Simply hook softwall strips and solid curtains onto the track and close the continuous cover.



Flex Track Mounting System

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## Application Guide

Simplex has more than twenty years of experience in the fabrication of strip door systems and clean room design. We can design and fabricate a system to precisely meet your needs. The models listed below are recommended for specific clean room applications. They can be used in various combinations to create a custom enclosure. If you are unable to locate the exact material you need, our trained sales representatives can assist you in whatever requirements you have.

### 606 Series

- 6" wide strips, 60 mil thick, with 1" to 3" overlaps.
- Available in clear, frosted, anti-static, opaque black and amber tint.
- Excellent for personnel doors, conveyor openings and reach-through areas. Offers versatile and easy access at any point.

### 608/808 Series

- 8" wide strips, 60 or 80 mil thick, with 1" to 4" overlaps.
- Available in clear, anti-static, frosted, black, blue, grey, beige and amber tint.
- The 8" wide 60 mil is ideal for wider doorways. The heavier 80 mil thickness offers more stability and better sealing power in turbulent areas. Both offer durability under heavy use with pallets or even where forklift use is required. Colored strips can be used to highlight entrance points in softwall rooms.

### 4012/6012 Series

- 12" wide, 40 or 60 mil thick, with 2" to 6" overlaps.
- Available in clear, frosted, anti-static, opaque black and amber tint.
- One of the most versatile and effective models for cleanrooms and dividers. The wider strip width reduces the number of strips required to cover an area, making its sealing capabilities more economical and efficient. The relatively light 40 or 60 mil thickness allows for easy access at any point. Situations involving higher traffic or more turbulent air flow are ideally applicable for the 60 mil vinyl.

### 60240 Series

- 24" wide strip, 60 mil thick with 4" to 12" overlaps.
- Available in clear, anti-static, opaque black, white and amber tint.
- 24" strips can divide or enclose large areas economically and efficiently, while still allowing access through strips.

### 4048/8048 Series

- 48" wide strips, 40 or 80 mil thick with 6" to 12" overlaps.
- For the big jobs, our largest strips are the obvious choice. As permanent or temporary walls, these heavy-duty strips can effectively separate production facilities from general warehouse space.
- 40 mil thickness available in standard, clear, anti-static and in several colors.
- 80 mil thickness available in standard, clear amber tint and anti-static.

### Solid Softwalls: 400 and 800 Series

- Solid vinyl walls consist of 48" wide, 40 or 80 mil panels electrically heat sealed together to create solid sheets of vinyl, available in virtually any size. For ease of installation, Simplex usually recommends turning lengths of no more than 20' at a height of 10'. For large areas of enclosure, we recommend overlapping the soft wall section. These overlaps can act as the entrance points into the room or can be sealed off through a number of methods.
- Simplex's softwall systems are superior to 16 and 20 mil systems often used as substitutes. By eliminating hem and sash weights, the Simplex softwalls can easily be trimmed and adjusted on the job site itself.

## Architectural Specifications

The Strip System/Softwall System: Shall be Model # \_\_\_\_\_, utilizing an RF bonded Hook-Bead mount, as manufactured by Simplex Strip Doors, Inc. The system shall be sized to fit an opening \_\_\_\_\_ wide by \_\_\_\_\_ high. Materials shall be: \_\_\_\_\_ mils thick, strip widths shall be \_\_\_\_\_ inches with \_\_\_\_\_ inches overlap.

The mounting hardware shall be flat or in-jamb - two-piece anodized aluminum with curved relief flanges or white PVC flex Mount, as manufactured by Simplex Strip Doors, Inc. Other application-specific mounting hardware, materials and custom finishes are available. Mounting hardware requiring punched holes, slits or notches (in the vinyl) shall not be permitted.

## Warranty

Simplex warrants their products to be free of manufacturing defects and against product failure of any kind for a period of one year from date of shipment. This includes premature yellowing or curling of strips (excluding those components that do not have UV protection - see sales rep for details). This warranty is limited to the repair or replacement of vinyl strips, vinyl panels or softwall materials and/or attaching hardware, and does not include damage resulting from accident or malicious

misuse. This warranty further applies only when the recommended material thickness and width are used for the originally specified application. Further, it applies only to Simplex doors, softwalls or frame systems which are properly installed in accordance with Simplex installation instructions. Additional extended warranty may be available on certain applications. See individual application sheets or ask your representative.



### Headquarters

Simplex Strip Doors, Inc.

14500 Miller Avenue, Fontana, CA 92336

Toll-free 800-854-7951 ■ Local 909-429-0117 ■ Fax 909-429-0217

Website: [simplexstripdoors.com](http://simplexstripdoors.com)

E-Mail: [simplexstripdoors@att.net](mailto:simplexstripdoors@att.net)

### Mid-Atlantic Office

Tryon, NC

Toll-free 800-692-4378 ■ Local 828-859-3177 ■ Fax 828-859-5828

### Northeast Office

Boston, MA

Toll-free 877-746-7540 ■ Local 781-982-1492 ■ Fax 781-982-0978

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Patent #4,312,396 and other patents pending