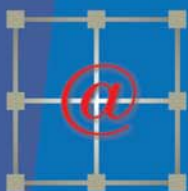


smart building products

Office Space

Raised Access Flooring

RAISING THE BAR



ASM

constructing smarter buildings



ASM's Commando Panel

ASM's High Strength Welded Steel Cement Filled Floor Panel

- Low ultimate load capacity a problem?
- Weak corners a problem?
- Warped panels a problem?

Not with ASM!

Each panel is color coded, and labeled to identify panel model and date of manufacture as part of our extensive quality control program.

Beautiful hand polished epoxy powder coat finish.

60 Perimeter Welds as compared to 40 in earlier designs.

All ASM panels have 15 welds along each perimeter edge: a 50% increase, and a total of 20 extra welds around the entire panel perimeter. The additional 20 welds dramatically improve edge load capabilities, and overall panel durability.

ASM's Answer to Warped Panels

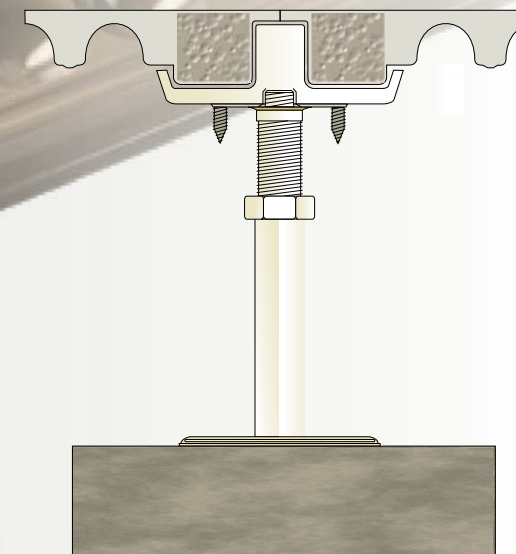
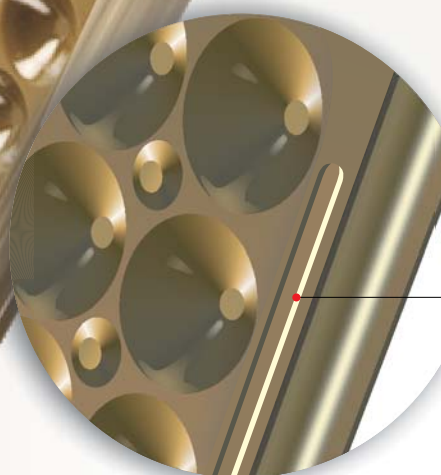
No rock and roll with ASM - each panel is put into a flattening press after welding, then checked for flatness. ASM is the only company to go to this extent, guaranteeing a super flat panel. It's the reason ASM can claim the flattest panel in the industry.

Ribbed bottom beams

In order to strengthen the perimeter of the panel only ASM has a rib in the perimeter beam which increases loading capabilities.

49 Reverse Structural Embossments

One at the center intersection of each structural cup. This eliminates any flat areas which are weak spots in early designs.



Corner Strength Solution

ASM's Commando Panels are a structural marvel: corners are 90 degree deep drawn steel beams filled with high strength cement. Any loads placed on the panel must transfer to the panel corners, and travel through the pedestals to the subfloor. In terms of load bearing, corner strength is factored as absolutely critical to the overall performance of the panel.

ASM's deep drawn beam corner is a difficult process with regard to its manufacture, but other panel designs that depend only on flattened or crimped steel corners cannot achieve the ultimate load capacity necessary to prevent bending up of corners or dishing panels.

When choosing access flooring, look closely at the strength of the corner area. It's the ultimate determinant of system performance.

High Strength Corners

High strength cement fill, along with more steel designed in the corners where it is needed, give ASM the best corner panel loading in the industry.

Ultimate Load Capacity

The ultimate load capacity is defined as the point at which panel failure occurs. This point of potential collapse may cause human injury or massive equipment damage.

ASM designs and builds its panels to a minimum safety factor of 2.5. That means a 1000 lb rated panel must support a minimum of 2500 lbs before failure occurs. In accordance with CISCA test procedures, the panel must accept this load anywhere on the panel's surface, specifically on the corner. (The load must be placed on an indenter of 1" x 1" maximum size to comply with CISCA testing standards.)

The point of failure or collapse is the single most important indicator of performance. Be sure to look at ultimate load when selecting an access floor panel for your application.

RAISING THE BAR



Why go with an ASM System

ASM belongs to the Kingspan Group of companies. Kingspan Group PLC is a publicly traded company, specializing in the manufacture and sale of building materials and components. ASM specializes in the manufacture and sale of access floor systems designed and built for the North American market. Our ISO 9002 factory, along with rigorous quality control systems and procedures, ensures ASM produces only the highest quality products. ASM is a long-standing member of CISCA.

worldwide

ASM's Quick Loc System (patent pending)

Pound for pound, Quick Loc is stronger and better!

Simply the most solid pedestal system in the industry!

ASM has engineered its Quick Loc System to assemble rapidly and precisely. This provides extra lateral floor strength by creating a rigid grid of floor tiles that lock into the pedestal head.

- FAQ** How does the Quick Loc system address these common problems:
- panel corners bend up as a load is applied by rolling carts, or situating equipment close to the panel corners.
 - panels sit on a flat head pedestal which cause panels to rock under loads, and causes the floor to squeak.

ASM has solved these problems with the invention of the Quick Loc Pedestal (patent pending).

- Quick positioning of panels is provided by locating corner tabs on Quick Loc System pedestals that effectively interlock the floor grid and its supporting structure with the panels.
- Tubes and studs are specifically designed to prevent pedestal head rotation.
- Dual support of the panel ensures ultimate corner support.

Eliminate squeaks, creaks, and bent up corners

Perfect alignment and unparalleled lateral stability

NEW

The most solid pedestal system in the industry

• **How it Works**

The Quick Loc Pedestal (patent pending) is the only pedestal that supports the panel on both the flange and the beam. This design transfers the load to the center axis of the pedestal where it is supported by the vertical shaft of the pedestal. The load is transferred directly down the center of the pedestal column. This eliminates the teeter totter effect which happens when a standard flat head pedestal supports the beam of the panel. If a panel is supported by the beam only, as is the case with traditional flat head pedestals,

the load is cantilevered out approximately 1" past the center axis of the support column, which causes a tipping motion when loads travel by. On a flat head pedestal, when a load travels from one panel to the next, the pedestal will teeter totter which causes excessive squeaking.

FAQ Is your raised office floor groundable?

Yes - with ASM's positive metal-to-metal ground, the **Ground-Fast Panel Bolt** (patent pending). ASM's new Ground-Fast Panel Bolt ensures metal-to-metal grounding of the office floor panel to the understructure, dissipating static and protecting against electrical faults.

2 chips for breaking coating on surface of countersink and establishing metal-to-metal ground



FAQ How does ASM's Quick Loc System enhance lateral stability?

The new ASM Quick Loc (patent pending) system captures and locates the panel as it is placed on the pedestal. The fasteners hold the panel down and clamp the panel to the pedestal. Because of the locating feature, the pedestal provides lateral stability without the fasteners in place.

FAQ How do ASM's Quick Loc pedestals provide ultimate support strength?

Raising the Bar on Quality

The ASM Quick Loc pedestal (patent pending) is stamped and formed out of one piece of metal, making it incredibly strong. It is then welded to a solid steel stud and finished with a premium gold-coat plated finish, traditionally used in demanding automotive applications.

- **Best engineered**
- **Best designed**
- **Best in the industry**

ASM reserves the right to change, alter or improve products without written notice.

Build your intelligent
office space with



Supreme Building Technology

What comprises an ESW System?

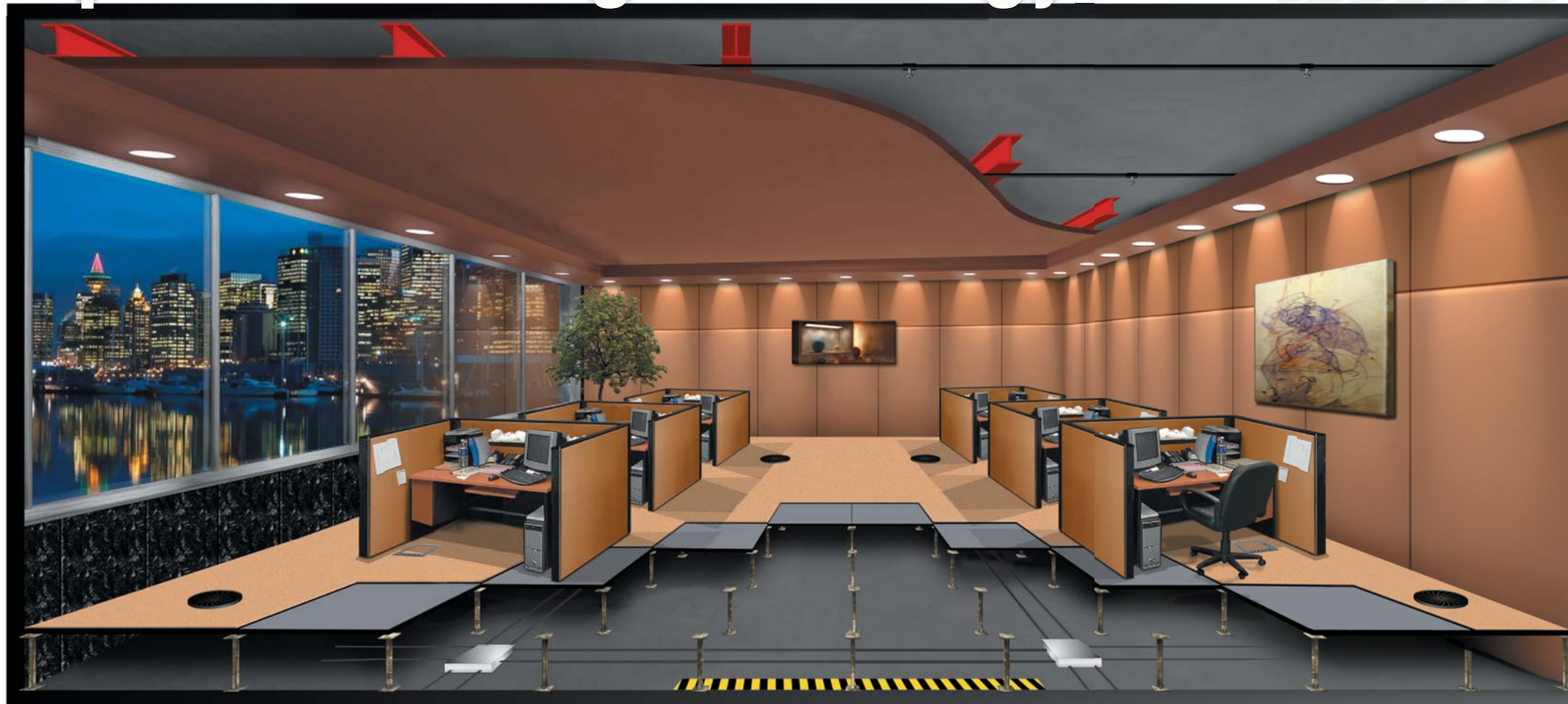
- Underfloor HVAC
- Raised Access Floor System
- Plug 'n Play Electrical Distribution
- Modular Carpet Tile

A comprehensive system for new builds. And a renovation solution.

Building on a successful and innovative past, ASM has developed the Environmental Systems Workplace™ (ESW). ESW is the culmination of proven technologies, adapted to the demands of today's rapidly changing work environment. Designed for the workplace of the information age, with advanced communications, for tomorrow and beyond.

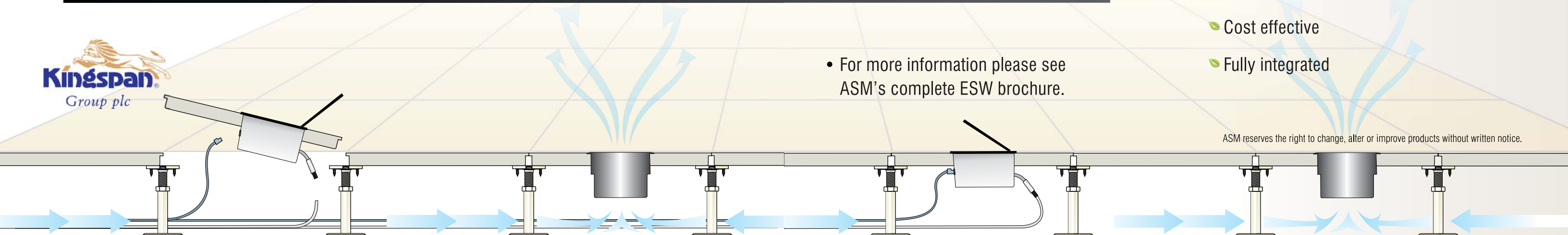
ESW completely integrates the technological requirements of occupant health and comfort, and environmental efficiencies into one cost-effective ultimately flexible system.

For the boardroom to the classroom, and all applications in between, ASM's new Environmental Systems Workplace just makes sense.



- Lower building costs
- Lower running costs
- Lower tenant turnover costs
- Environmentally friendly
- Clean air technology
- Energy efficient
- Flexible zone air delivery system
- Component wire/cable system
- Optimal slab-to-slab height for low rise to high rise applications
- Cost effective
- Fully integrated

• For more information please see
ASM's complete ESW brochure.



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FS-Series Concrete Filled Welded Steel Panels

Our best seller, the FS-Series panel system, is constructed of a welded structural steel assembly designed to accommodate ultimate and dynamic loads. Its specially formulated cementitious fill and powder coated epoxy finish give the FS panel a quiet and very solid feel underfoot. Panel systems are available in both 24” x 24” and 600mm x 600mm. The FS-Series systems are perfect for use in the following applications:

Computer Rooms
Once factory laminated with a variety of high pressure laminates or VCT, the FS panel is perfect for those heavy rolling loads typically applied to raised flooring in ever changing data centers.



General Office
This panel is extremely quiet. With its powder coated bare finish and low cost, it is always a great choice for your general office requirements.



S-Series Hollow Welded Steel Panels

The S-Series hollow steel panel system uses the same welded steel technology found in the FS panel. With its high strength and light weight, the S-Series panel is the product of choice for many computer room applications. This panel has the ability to interchange with the FS panel, allowing for ultimate flexibility in flooring design. Panel systems are available in both 24” x 24” and 600mm x 600mm. The S-Series systems are perfect for use in the following applications:

Computer Rooms
Lightweight says it all. These panels are easy to handle making those day to day changes within your data centers extremely easy.



FAQ **How are ASM panels protected from rust and corrosion.**

Corrosion Resistant Process
The ASM FS- and S-Series panels are first fully immersed in a corrosion resistant bath of phosphate to protect inner and outer surfaces prior to applying the epoxy powder coat finish. Each panel is hand polished to a bright clean luster.

FAQ **How do you ensure panel flatness?**

ASM is the only manufacturer to stamp the hollow panel one additional time after welding to ensure the panel is flat after potential distortions during the welding process.



ASM Outperforms - It's Simply the Best

ASM's vast experience and extensive product development policy has created the world's strongest access floor panels.

Designed in the US, developed in the US, for the US market, tested as per CISCA procedural requirements, using stringent US standards.

The performance charts shown indicate product performance when tested in accordance with CISCA test procedures.

FAQ **Is it the industry standard to advertise CISCA performance results only?**

No - you must check tables and charts and make certain it is clearly noted that results represented are according to CISCA test procedures. If there is no mention of CISCA, you can assume they are not by CISCA standards.

The Ultimate Load is considered the single most important test in the CISCA series, as it indicates when panel failure occurs.

FS-Series Performance Guide

Panel	Ultimate Load LBS. (KN)	Concentrated Load	Impact Load LBS. (KN)	Rolling Load 10 Pass LBS. (KN)	Rolling Load 10,000 Pass LBS. (KN)
FS100	3250 (14.52KN)	1000 (4.41KN)	150 (67KN)	800 (3.53KN)	600 (2.64KN)
FS200	3800 (16.72KN)	1250 (5.51KN)	150 (67KN)	1000 (4.41KN)	800 (3.53KN)
FS300	5000 (22.00KN)	1500 (6.61KN)	150 (67KN)	1250 (5.51KN)	1000 (4.41KN)
FS400	6000 (26.40KN)	2000 (8.81KN)	175 (78KN)	1500 (6.61KN)	1200 (5.29KN)
FS500	7000 (30.80KN)	2500 (11.01KN)	200 (89KN)	1800 (7.92KN)	2000 (8.81KN)

Notes: ASM Products are tested by a certified United States testing company. Certified test reports in accordance to **CISCA** test procedures are available upon request.

S-Series Performance Guide

Panel	Ultimate Load LBS. (KN)	Concentrated Load LBS. (KN)	Impact Load LBS. (KN)	Rolling Load 10 Pass LBS. (KN)	Rolling Load 10,000 Pass LBS. (KN)
S100	3200 (14.08KN)	1000 (4.41KN)	150 (67KN)	400 (1.77KN)	400 (1.77KN)
S125	4500 (19.81KN)	1250 (5.51KN)	150 (67KN)	500 (2.21KN)	500 (2.21KN)
S150	5000 (22.01KN)	1500 (6.61KN)	150 (67KN)	600 (2.65KN)	600 (2.65KN)

Notes: Hollow steel panel deflection is measured on the panel underside (Beam) and is noted as a fraction of the panels span. All testing witnessed and reported by Intertek Testing Services, Middleton, Wisconsin.

ASM's Low Profile Systems

Low Profile Systems

The ASM low profile system is perfect for retro-fits, or any building where low ceiling space is an issue. This system utilizes the ASM low profile pedestal (LPP) to achieve a low profile floor system.

- Adapts to spaces with low ceilings
- Threaded rod allows levelling of the floor, eliminating the need to level systems furniture
- Quiet & solid
- Easy installation and disassembly

ASM, the strongest low profile systems in the industry

2 1/2" - 5" Floor Heights

SmartFloor™ The Only Top Adjusting Floor In The Industry!

This system meets all the requirements of the office that demands total flexibility and cable management using an access floor which is level and quiet underfoot.

This floor is squeak proof, level, and built to last a lifetime. The Smart-Floor pedestal is adjustable after the floor panel has been installed. It is the first floor to offer this feature, which now makes a low profile floor truly adjustable, even after the panels are in place. Simply remove the panel retaining device which unlocks 4 corners at once and level to the laser beam using a power socket wrench. The

The patent pending low profile access floor system that eliminates squeaks, rockers, and levels from 2" to 6" finished floor height. All top adjustable!

installation is fool proof and at least 30% faster than traditional floors.

If the floor is level, everything on top becomes a simple and fast installation. Even systems furniture will need little to no leveling. Imagine, everything is level from the floor up!

Equivalent to a data center access floor, ASM Smart-Floor is made of formed and welded steel shells injected with high strength concrete to give you a solid, concrete feel floor. This system meets all the requirements of the office that demands a high quality,



MC125 Metal Clad Woodcore Systems

The ASM MC125 Panel is constructed of a high density composite core encased in a sheet metal shell. The MC Systems offer high performance characteristics in a fair valued product. Its solid feel and light weight offers an economical solution to your access floor needs. Applications:

Computer Rooms
In addition to its light weight, a strong ultimate load capacity makes this a favorite for computer rooms.

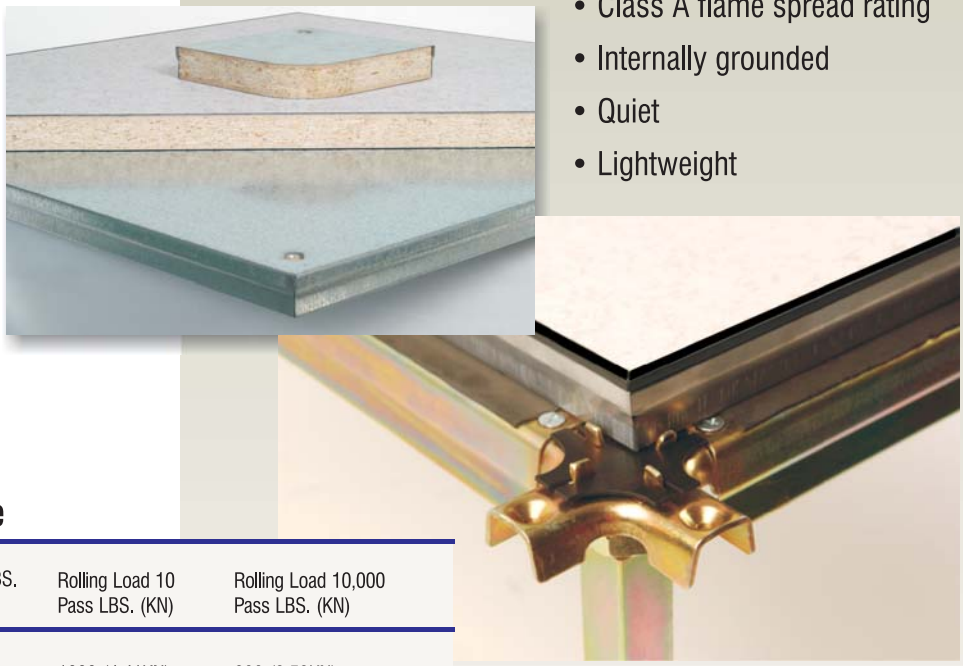
General Office
The woodcore panel's solid feel is quiet yet economical. An excellent rolling load and Class A flame spread rating make this a perfect choice for general office use.

Renovation Projects & New Construction
The woodcore panel's flexibility and light weight make it an excellent option for retro-fits as well as new construction.

MC125 Metal Clad Woodcore Systems

ASM Management is responsible for the design and initial production of the most famous and widely used woodcore system in the world.

- Class A flame spread rating
- Internally grounded
- Quiet
- Lightweight



MC125-Series Performance Guide

Panel	Ultimate Load LBS. (KN)	Concentrated Load LBS. (KN)	Impact Load LBS. (KN)	Rolling Load 10 Pass LBS. (KN)	Rolling Load 10,000 Pass LBS. (KN)
MC125	3000 (13.2KN)	1250 (5.29KN)	150 (67KN)	1000 (4.41KN)	800 (3.53KN)

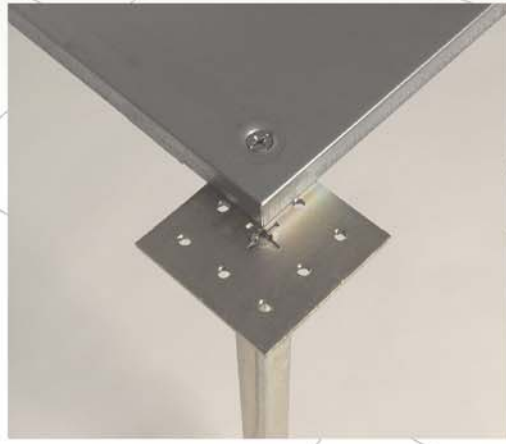
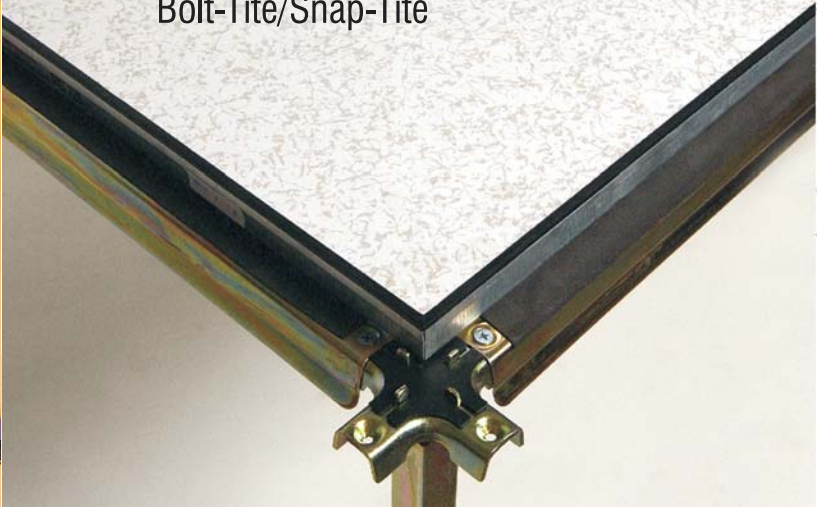
Notes: ASM Products are tested by a certified United States testing company. Certified test reports in accordance to CISCA test procedures are available upon request.

MC-Series Understructure

Bolt-Tite/Snap-Tite

Corner Bolt

A variety of understructure options ranging from standard Bolt-Tite to heavy duty rigid grid will accommodate any type of flooring installation. All understructure is manufactured in our ISO 9002 facility.



ASM's Understructure



FAQ

What finishing processes are integral to giving access floor understructure the characteristics and protective properties that contribute to the floor's overall performance?

ASM's superior finishes are effective and consistent, giving a bright and polished look with protective properties. All ASM's parts are dipped in the corrosion-resistant finish after stamping and welding, to protect welds and raw edges from rusting.

FAQ

Is the sequence of processes significant in the manufacture of pedestal systems?

The sequence is critical: the dipping process completely protects welds and raw edges if it is done after welding and stamping.

FAQ

Is there a way to design an access floor for a set of unique criteria, particular to the sensitivities of a very specific set of conditions?

ASM can develop and supply custom understructure systems specific to any application.

- **Versatile understructure for all types of installations**
- **Electrical resistance of less than 10 ohms**
- **ASM's steel manufacturing facility is ISO 9002 registered**

Corner Bolt

This is the most widely used system for general offices where carpet tile is to be installed. A $\frac{1}{4}$ "-20 threaded fastener secures the panel firmly to the pedestal system in each corner of the panel.



Classic Performers

Bolt-Tite

Offering great lateral support, this system is generally used where the panels are gravity held on the understructure. Stringers are available in 2' (600 mm) and 4' (1200 mm) lengths allowing for standard (2' x 2') or basketweave installations (4' x 4' or 4' x 2'). Every ASM stringer is hot dipped galvanized to preclude the possibility of equipment shorting as a result of zinc whiskering. Every ASM stringer boasts solid tube construction to resist bowing and spreading during load impacts, and a solid vinyl strip for a snug, quiet fit between stringer and panel.



Seismic

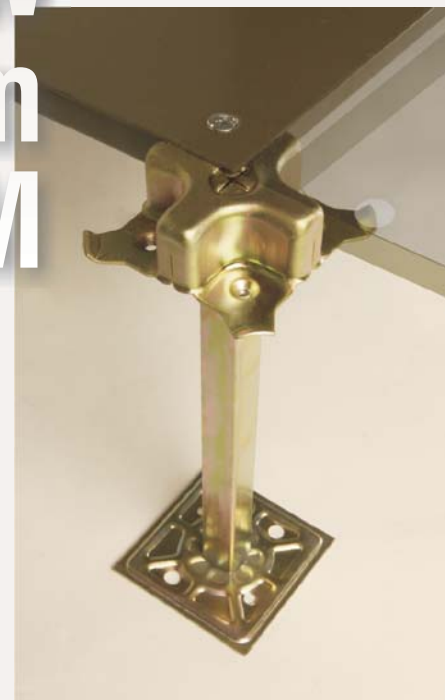
ASM offers the most comprehensive variety of pedestal types allowing for durable strength in any of zones 1 through 4. This full line of pedestals can further be strengthened by bolting them to the concrete slab for the most solid access flooring systems available. ASM introduces its Atlas Pedestal Systems, designed for optimal heavy duty support and for the most severe conditions. No other system compares for strength and simplicity.



NEW from ASM

Quick Loc

The Quick Loc Pedestal (patent pending) is the only pedestal that supports the panel on both the flange and the beam. This design transfers the load to the center axis of the pedestal where it is supported by the vertical shaft of the pedestal. The load is transferred directly down the center of the pedestal column. This eliminates rocking which can happen when a standard flat head pedestal supports the beam of the panel.



ASM's Accessories

The ASM SmartBox™ Power, Voice and Data Box

Constructed of a high grade galvanized steel frame 2mm thick, with a virtually indestructible Lexan lid. The RFB100 box can be supplied empty for site installation of outlets or pre-wired with a customized variety of electrical, voice or data outlets to meet every requirement.

- Boxes are UL approved and listed.
- Easy to install and very flexible. The RFB100 box is lightweight and can be used in any access flooring system.
- Easily installed into 8 3/4" square cut-out.
- 10 1/2" square mounting lid with insert for carpet finish.



Smart-Air™ Diffuser

The ASM Smart-Air Diffuser is a low velocity air diffuser. Designed for use in an access floor system using the under floor area as a pressurized supply air plenum.

The attractive turbine patterned face produces a low velocity helical discharge pattern that achieves a high induction rate of conditioned air, obtaining optimum circulation and human comfort conditions.

A unique control damper is operable from the surface without the use of tools or removal of the face to allow for personal area control of office climate.

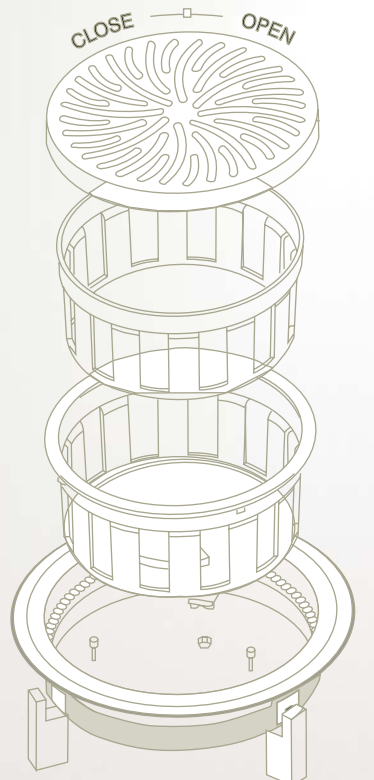
ASM's Smart-Air AD2002 Diffusers are manufactured to the same high standards of quality as other ASM products. Engineered to help direct and distribute air flow where it is wanted, the Smart-Air Diffuser contributes to the maintenance of a comfortable work environment for employees. The Smart-Air Diffuser has been designed specifically for easy exchange and adjustment within the flooring system. This allows for optimal performance of mechanical systems and flexibility in creating a controlled room temperature.



The ASM Smart-Air Diffuser is constructed of high impact polycarbonate/ABS complying with UL Standard 94-5V for flammability.

Standard colors of black, grey and brown. Custom colors are available if quantities warrant.

The diffuser is mounted to the access floor panel by means of 3 adjustable permanently attached mounting clamps. Clamps are fastened from the top without removal of the access floor panel.



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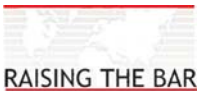


In July of 2005 ASM Modular Systems joined the Kingspan Group. In addition to being the largest access floor manufacturer in the world, the Kingspan group is a major manufacturer of an integrated range of products for the construction industry. The Group continues to innovate and improve on an existing product range, and have done so successfully for over 30 years. These innovations are clearly seen within Kingspan's emphasis on Modern Methods of Construction and importance on increasingly sustainable buildings.

The Group's companies have a presence around the world that is ever increasing. ASM looks forward to using the vast experience and resources now available to further bring about a whole new level of service to its customers.

For more information about Kingspan please visit us at www.kingspan.com

ASM's

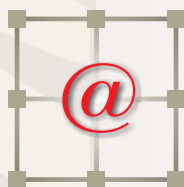


Comprehensive Raised Access Flooring Systems for Office Environments

Build perfect infrastructure
for your office space

Businesses have responded quickly and dramatically to rapid technological changes over the last several years. Yet, building systems have been slow to accommodate these demands. Changes to office environments continue to be disruptive, slow and wasteful. Repairs are unnecessarily costly and labor intensive. Risk to sensitive equipment and data remains unnecessarily high. Environmental efficiency and comfort is more important than ever.

ASM's Raised Access Flooring systems eliminate the need for embedded wiring and provides instant access to wiring and cabling, allowing for quick and easy reconfiguration. Low cost, energy efficiency and no waste. ASM has developed the technology to address advances in electronic work flow, conservation and occupant comfort. ASM - Raising the Bar on building performance.



ASM

constructing smarter buildings

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(843) 534-1110
(843) 534-1111 Fax

www.asmproducts.com