

Ramp Shoe in Raised Access Floor System

The new Unitile Ramp Shoe is designed to provide a smooth transition between the raised access floor tiles and the concrete floor. The system is generally used in applications, which require heavy footfall movement & rolling of equipments into the facility using trolleys. Examples of such spaces includes commercial offices & data center facilities.

The product is made up of heavy-duty anodized aluminum. The Ramp Shoe features a trapezoid anchoring leg, which is firmly secured to the concrete floor. The system is securely fastened to the concrete floor at regular intervals with the use of fasteners. The ramp provides a sloped transition surface that terminates at the height of the access floor tile edge. The profile protects tile edges to eliminate trip hazards and ensures easy access of trolleys.

The Ramp Shoe is a full 15 inches wide which meets ADA 1:12 requirements for ramped surfaces. It protects the ramp from equipment damage and makes an excellent seamless transition between two surfaces.

The Ramp Shoe are available in following sizes:

- ◆ 2000 mm L X 165 mm B X 50 mm H
- ◆ 2000 mm L X 395 mm B X 50 mm H with option for provision of dust matting strips.

**Lengths above 2000 mm are also available upon request.*

DESIGN FEATURES



Dust Matting Strip

BENEFITS

01 Provides smooth transition between the raised access floor tiles and the concrete floor.

02 Takes care of rolling of heavy equipment such as trolleys & heavy footfall.

03 Unitile dust control Ramp Shoe are designed to:

- ◆ Remove dirt and moisture from shoes
- ◆ Prevent debris from entering the building
- ◆ Keep entrance ways looking clean and presentable
- ◆ Reduce slips, trips and falls from slip hazards on wet floors.

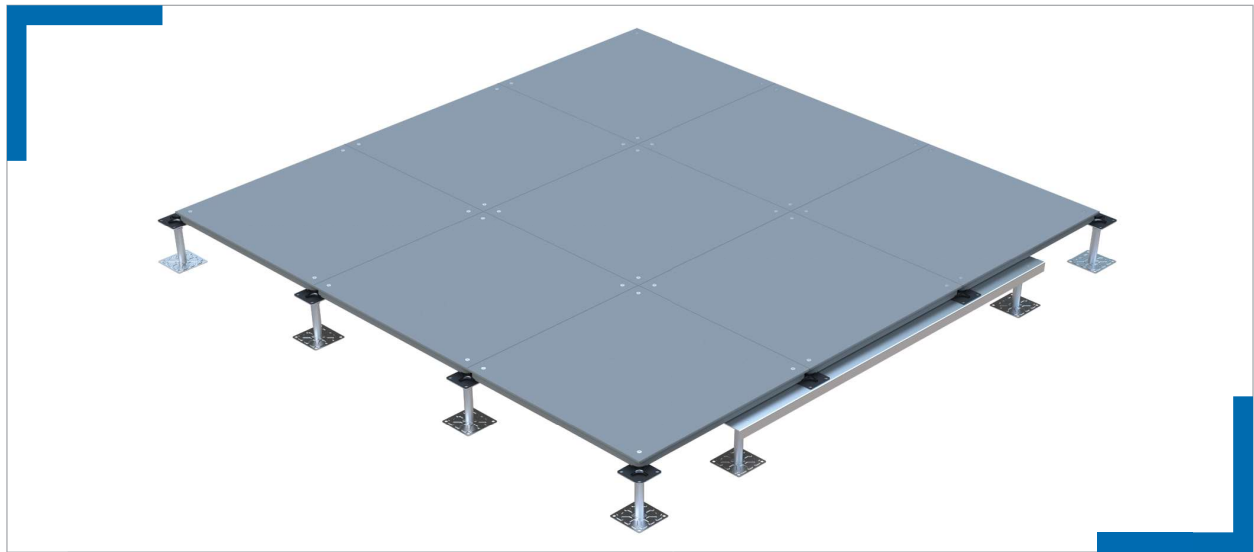
Bridge in Raised Access Floor System

Bridge is a component used in raised floor whenever the pedestals are fouling with cable trays or any other underfloor services. It prevents breaking the continuity of the raised access floor due to the intersection between the pedestal and other underfloor services.

The heavy duty bridge is made up of powder coated 'C' channel of size 90 mm X 35 mm thickness with designated pre-punched tapping locations to secure the pedestal head and PVC cap. The pre-punched tapping locations corner locks the panels for maintaining the panel alignment and for balancing the panel.

It is available in length of 1200 mm and 1800 mm.

**Wider dimension can be made available on request.*



ADVANTAGES

01

Can give clear span of 1200 /1800 mm for services above 600 mm

02

Ease of integration of under floor services

03

Can take the required live loading

04

Can take care of curve cable trays without fouling with the raised floor pedestals

05

Pre engineered & designed to accommodate the raised floor PVC cap & screws to be directly fixed on the bridge

Data Center Solutions

Rapid evolution of the data center is creating boundless new opportunities, but along with those come urgent monitoring and management challenges. Energy consumption is one of the growing concerns for data centers.

Advances in server equipment technologies and increased demand for computing power have increased load densities in the computer room, which in turn has caused corresponding increases in data center power consumption. Energy efficiency measures are thus of high importance for data center designers, operators, and owners.



Unitile has developed a range of cost-effective and energy efficient solutions that provide data center owners with compelling returns on investments and lower operating costs in both new build and retrofit applications. Key features of the concept include:

01

- ◆ Reduces air loss in under floor cooling systems.
- ◆ Enhances the performance of cooling equipment.

02

- ◆ Enhances overall energy efficiency of the Data Center.
- ◆ Unmatched ability to handle high density server racks of the most mission critical facilities.

03

- ◆ Enables uniform balancing of air throughout the critical space
- ◆ Ensures proper air distribution at various rack levels

U-Flex offers your data center best-in-class solutions to efficiently manage maintain a healthy, secure, and cost-efficient data center.

Data Center Accessories

U-FLEX AIR PLUGS Air Control Solutions


Data Center servers generate high heat output and hence keeping them cool and operating it efficiently is very important. Data centers that are not well managed often suffer from hot spots leading to equipment failure. These servers are often fitted into smaller footprints that require higher cooling capacity. Additional cooling capacity demands more cooling units, which are expensive.


A better solution is to plug the loss of cold airflow before adding more cooling capacity and ensures its direction to where it is needed the most.


Air Plugs offer a series of engineered raised-floor grommets to plug cut-outs within the raised-floor and stop cold air from escaping, while still allowing cables to pass through.


Air Plugs raised floor grommets are static dissipative and prevent static discharges being carried up to the cables. Air Plugs thus drastically improves data center environment by plugging cut-outs within the raised-floor.




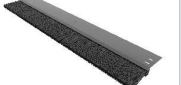
Model No: UFAP-101			
Integrated Raised Floor Grommets		US unit (Inches)	Metric (mm)
	Usable Cable Area	8 x 4	203 x 102
	To Install grommet in interior of the tile	9¼ x 6¼	235 x 172
	To install long side of the grommet on tile edge	9¼ x 7½	235 x 191
	To install short side of the grommet on tile edge	10¼ x 6¼	275 x 172

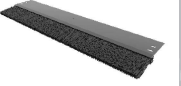
Model No: UFAP-202			
Surface-Mount Raised Floor Grommets		US unit (Inches)	Metric (mm)
	Maximum Cutout size sealed	10 x 7¼	254 x 184
	Usable Cable Area	8¼ x 4	210 x 102


Model No: UFAP-203			
Large Surface-Mount Raised Floor Grommets		US unit (Inches)	Metric (mm)
	Maximum Cutout size sealed	10 x 9¼	254 x 248
	Usable Cable Area	8¼ x 4	210 x 102


Model No: UFAP-204			
Extra-Large Surface-Mount Raised Floor Grommets		US unit (Inches)	Metric (mm)
	Maximum Cutout size sealed	10 x 13	254 x 330
	Usable Cable Area	8¼ x 4	210 x 102

Model No: UFAP-303			
Split Integrated Raised Floor Grommets		US unit (Inches)	Metric (mm)
	Maximum Cutout size sealed	9¼ x 6¼	235 x 172
	Usable Cable Area	8 x 4	203 x 102

Model No: UFAP-012			
Extended Raised Floor Grommets		US unit (Inches)	Metric (mm)
	Maximum Cutout size sealed	23¼ x 4	600 x 102
	Usable Cable Area	23½ x 2½	590 x 64

Model No: UFAP-013			
Extended Brush Raised Floor Grommets		US unit (Inches)	Metric (mm)
	Maximum Cutout size sealed	24 x 4	610 x 102
	Usable Cable Area	23½ x 2½	600 x 64

Model No: UFAP-G50			
Circular Brush Grommets		US unit (Inches)	Metric (mm)
	Maximum Cutout size sealed	3½ x 0,8	82 x 20
	Usable Cable Area	3 x 0,8	75 x 20

Model No: UFAP-G100			
Split Circular Brush Grommets		US unit (Inches)	Metric (mm)
	Maximum Cutout size sealed	4½ x 2	105 x 50
	Usable Cable Area	4 x 2	95 x 50

U-FLEX AIR PLUGS Air Control Solutions

DESIGN FEATURES

- ◆ Plugs the openings in the raised floor and prevents cold air from escaping at unwarranted areas.
- ◆ The grommets integrate with the raised floor static dissipation system, providing 1 Giga Ohm of resistance.
- ◆ Allows easy pass-through of power plug connectors and large cable bundles of up to 4" x 8".
- ◆ Constructed with more than 25,000 filaments of resistant & durable flame retardant ABS polycarbonate material.
- ◆ Realize up to 92-100% seal per grommet.
- ◆ Contains no loose or partially fastened parts.

BENEFITS

- ◆ Reduces air loss in under floor cooling systems.
- ◆ Increases under-floor static pressure.
- ◆ Enhances the performance of cooling equipment.
- ◆ Allows flexibility and simplicity in cable routing.
- ◆ Easy installation and cost effective.
- ◆ Reduces the need to purchase additional cooling units.
- ◆ Decreases humidity control expense.



Superior Sealing

New, patented Hybrid Brush Technology (HBT) offers exceptional sealing and airflow management, unsurpassed by other leading brush products in the market today.



Easy Installation

Simple installation saves time and labor and requires no downtime. Round grommets enable hole saw installation which reduces cutting time by over 50%.



Maintenance free

Hybrid Brush Sealing Technology automatically seals around cables with no additional maintenance or monitoring required.



Longevity

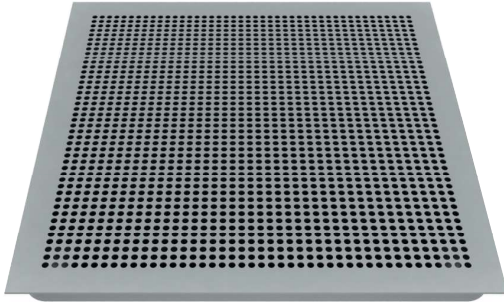
Durable ABS frame and Hybrid Brush sealing surface can be used for years.

U-FLEX STANDARD AIRFLOW GRILLS

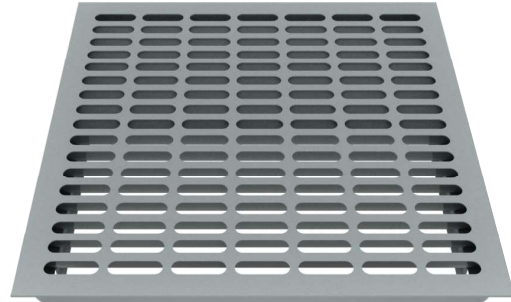
U-Flex Standard Air Flow Grills are manufactured from mild steel with a perforated top having an overall dimension of 600 mm x 600 mm. The panels consist of a specially designed side channel section which houses a pre-punched top perforated sheet and is available with optional volume control damper (VCD). The central core of the panel is fitted with a grid of vertical steel blades to avoid airflow turbulence and to minimize pressure drop.

A vertical mesh is provided to support the airflow grill at regular intervals to ensure flatness and high load carrying capacity. The panel can be compatible with the adjacent raised access floor system. The top performance finishes are powder coated and can be available with high pressure laminate finish as per the user's requirement.

27% Opening



46% Opening



Technical Specification

Standard Air Flow Grills	Size of the Active Grill	Min. Permissible false floor height	CFM	Concentrated Load	Uniformly Distributed load	Air Flow Direction
27%	600 x 600 mm	450 mm	350 - 500	540 kgs	1620 kgs/Sq.mt.	STD
46%	600 x 600 mm	450 mm	350 - 500	540 kgs	1620 kgs/Sq.mt.	STD

* Contact us for detailed specifications of the product design.

DESIGN FEATURES

01 High load carrying capacity.

02 Cost effective solution.

03 Equal airflow performance in both finishes- powder coated & laminated.

04 Enables uniform balancing of air throughout the critical space.

05 Available with height adjustment feature to complement the adjacent raised access floor system.

06 Available with an option of adjustable dampers to manage airflow volume.

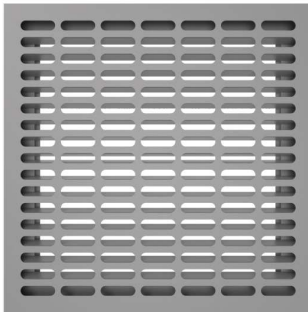
U-FLEX DIRECTIONAL AIRFLOW GRILLS

In today's rapidly changing technology in data centers it is important to ensure that every component of support infrastructure is operating with maximum efficiency and reliability. The continued adoption of high-density racks and cloud computing strategies require the cooling infrastructure to accommodate to high end changing loads.

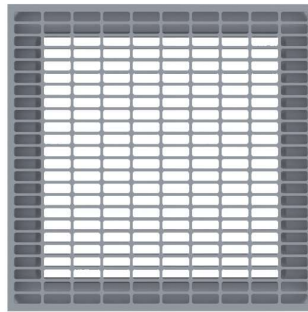
Understanding the challenge of cooling the high density server racks, U-Flex directional air flow grills provide high energy savings and a cost effective solution for new as well as retrofit data centers. High performance directional airflow grills ensure faster cooling of racks thus leading to high return on investments (ROI) and lower operational costs.

STANDARD | SINGLE DIRECT | DUAL DIRECT

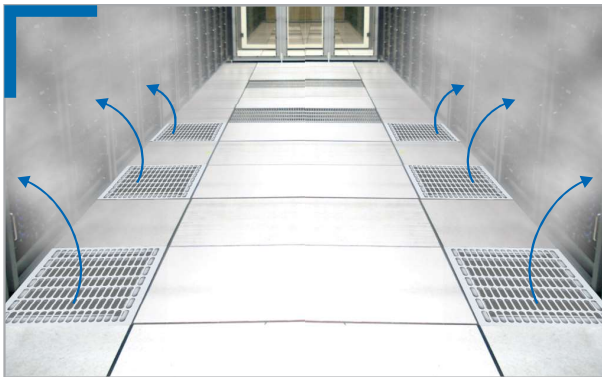
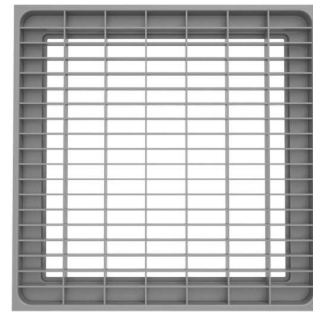
55% Opening



66% Opening



80% Opening



Single Direct Air Flow:

Single Direct Airflow grills are used in a Data Centers where in the cold aisle can accommodate two air flow grills and each grill will direct the air to the adjacent server racks. Single direct delivers cold air directly to the rack ensuring maximum air capture unlike the conventional airflow grills.

Dual Direct Air Flow:

Dual Direct Airflow grills are used in Data Centers where in the cold aisle can accommodate only one air flow grill and the single grill can direct the air to the adjacent server racks. Dual direct delivers cold air directly to the rack ensuring maximum air capture unlike the conventional airflow grills.



U-FLEX DIRECTIONAL AIRFLOW GRILLS

Technical Specification					
Size of the Active Grill	Min. Permissible false floor height	CFM	Concentrated Load	Uniformly Distributed load	Air Flow Direction
600 x 600 mm	300 mm	700 - 1300	540 kgs	1620 kgs/Sq.mt.	STD/SD/DD

* Contact us for detailed specifications of the product design.

DESIGN FEATURES

- 01** Mild steel construction enhances the load bearing capacities.
- 02** Made from non-combustible material.
- 03** Available with an option of adjustable dampers to manage airflow volume.
- 04** Unique design provides seamless compatibility with all types of raised access flooring system.

BENEFITS

- 01** Achieves close to 94% of air capture
- 02** Enhances overall energy efficiency of the Data Center
- 03** Over 40% annual fan energy savings
- 04** Directional airflow ensures proper air distribution at various rack levels
- 05** Prevents mixing of air & ensures proper air distribution at rack level
- 06** Increases the efficiency of air conditioning equipment in critical spaces
- 07** Unmatched ability to handle high density server racks of the most mission critical facilities

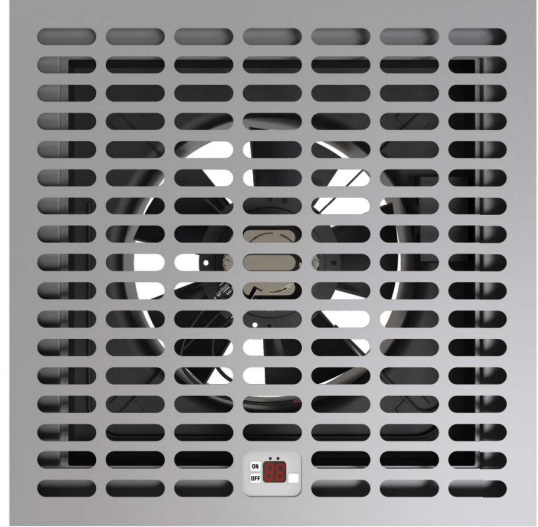
Data Center Accessories

U-FLEX MULTIPLYAIR

U-Flex – Multiplyair cooling system is used in high and medium density data center which always faces unique cooling challenges. There is a considerable increase in the consumption of energy while attempting to cool a few selective racks which often leads to excessive cooling of the other racks. This common phenomenon deteriorates the overall energy efficiency of a data center.

Multiplyair fan assist module is designed to provide multi-fold cooling through an individual airflow grill that balances and ensures proper airflow to the individual racks. The system is equipped with a unique control feature, which automatically turns on when additional cooling is required. This prevents additional energy consumption caused due to the excessive cooling of server racks.

The Multiplyair cooling system consists of an energy saving electronically commutated fan which is designed to take care of adaptive load based on the temperature of the server rack. The EC fans are mechanically mounted in the Multiplyair mild steel construction to ensure smooth function without any vibrations.



The EC fans speed modulation is varied from 0 to 100% depending on the load condition and temperature at the rack level with temperature ranges from 19 Deg C to a maximum of 30 Deg C.

This speed modulation enhances the energy saving of the total system. The inbuilt temperature sensor and controllers monitor this operation. The controller is further equipped with a LCD temperature display interface that can be viewed from the top of the grill.

Multiplyair is available only with 55% opening.

Technical Specification

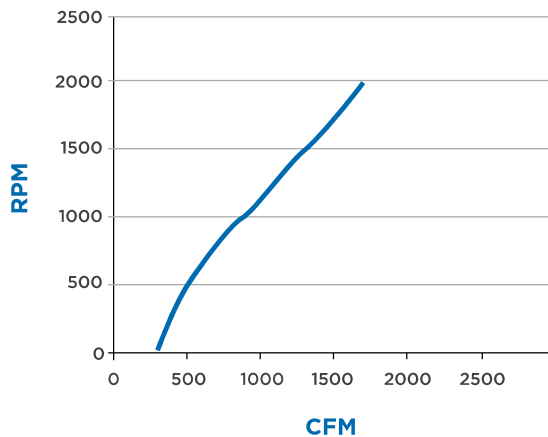
Size of the Active Grill	600 x 600 mm
Min. permissible false floor height	450 mm
CFM	1500 or 2500 CFM at 0.1 of H2O (Static Pressure)
Concentrated load	540 kgs
Uniformly distributed load	1620 kgs / sq. mtr.
Air Flow direction	Standard

* Contact us for detailed specifications of the product design.

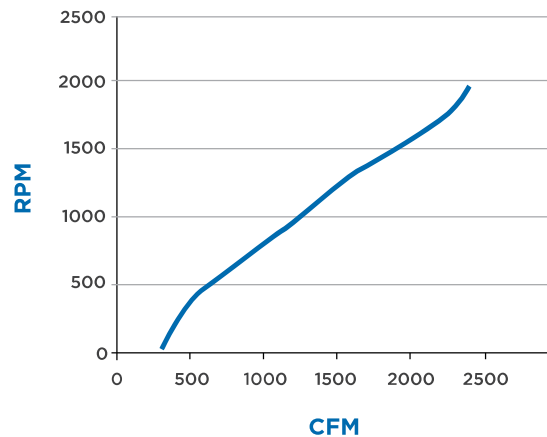
Data Center Accessories

U-FLEX MULTIPLYAIR

MultiPLYair 1500 used for cooling a server rack of approximately 10 kw



MultiPLYair 2500 used for cooling a server rack of approximately 15 kw



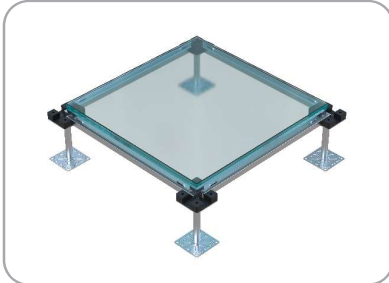
DESIGN FEATURES

- ◆ Available with identical load bearing capacities as the adjacent raised access floor panel.
- ◆ Integrates and reconfigures with existing raised access flooring understructure.
- ◆ The construction is robust, mild steel.
- ◆ Made up of non-combustible material.
- ◆ High quality temperature sensors used for sensing the thermal load variation.

BENEFITS

- ◆ EC backward curve fan ensures low energy consumption.
- ◆ It allows automatic modulation of air flow based on actual thermal load of single rack.
- ◆ Avoids creation of hot spots in critical area.
- ◆ Simple but effective solution for high density racks.
- ◆ Guarantees an intrinsic level of safety, avoids issue of water or refrigerant being near the electronic equipment.
- ◆ It provides high degree of modularity and flexibility without occupying large amount of space in IT room.
- ◆ MultiPLYair can be easily installed even after the site has been opened if the loads are higher than those which can be met by traditional CRAC solution.
- ◆ Gives a clean, smooth and obstruction free finish to the floor after installation.

OTHER U-FLEX ACCESSORIES



Vision Panel

Vision Panel is constructed with an overall dimension of 600x600mm. The viewing area is made of toughened glass available in sizes of 300x300mm, 450x450mm and 500x500mm. The Vision Panel can be used for viewing critical points that need frequent monitoring and is designed for normal walking load only.



Electroflex

Electroflex is a concealed electrical monument box which has a depth of 70mm to accommodate plug-in facility and 35mm depth to accommodate power, voice and data (PVD) accessories. The hinge lid is constructed with pre-coated galvanized steel and has recessed grey ABS trim to accommodate carpet tiles or any other factory bonded finish to match the adjacent floor finish.



Desk Grommets

Desk grommets are a simple and inexpensive way to keep wires from cluttering your work surface. They are perfect for running your cables through your desk or through a wall. Simply use a hole saw machine to make a hole in the desk / wall, then insert the grommet. Remove the cap so you can insert your cables, then put the cap back in place.



Panel Lifter

Unitile's double cup suction panel lifter(s) allows panels to be lifted quickly, easily and safely without damaging any of the adjoining access floor panels. Not only are they more efficient and safer than using improper tools (screwdrivers, knives), using them will also extend the life of your raised floor. Unitile's panel lifters are designed for use on all access floor panels which includes 'bare' and 'high pressure laminate' panel surfaces.

The Unitle Experience

OUR CLIENTS ARE AT THE HEART OF OUR BUSINESS



The Unilever Experience

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