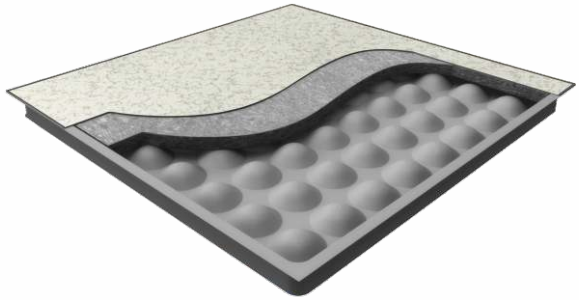
UNITILE NEX-GEN 1200MMx1200MM

EDGE SUPPORT RIGID GRID (ESRG) SYSTEM

PANEL ILLUSTRATION



Category	Edge Support Rigid System (ESRG)
Panel size	600 x 600 mm
Core Material	Cement
Panel Construction	Steel cementitious panel
Panel Core Thickness	35 mm
Panel Weight	15.10 kgs
Weight of System	60 kgs / m2 for FFH 500mm (varies with height)
Overall Floor Height	450mm – 2000mm

FEATURE BENEFITS

- Enhanced load-bearing capacity.
- Higher footprint area on pedestal head leading to enhanced stability & improved load carrying capacity.
- No overlapping of panels.
- Edge Support Design reduces the risk of damage to the panel edges during exposures to rolling and impact loads at site.
- Prevents fouling of cable tray systems with pedestals.
- Convenience of cable routing.
- Ease of post-handover maintenance for the lifecycle of the facility.
- Faster installations at site due to fewer pedestals
- Lesser obstruction to larger services running below floor (above 500 mm)

PRODUCT STRUCTURAL PERFORMANCE

Conforming to Master Specs 10270 / 096900 (USA)
CISCA A/F, 'Recommended Test Procedures for Access Floors'

Concentrated Load (Point Load)	363 kgs (800 lbf)
Uniformally Distributed Load (UDL)	1650 kgs /sq. mt.
Ultimate Concentrated Load	908 kgs (2000 lbf)
Rolling Loads	180 kgs (397 lbf)
Stringer Load	102 kgs (250 lbf)
Pedestal Axial Load Test	22 kN
Pedestal Over Turning Moment Test	113 N x Meters

SYSTEM DESCRIPTION

Unitile Nex-Gen is a re-engineered raised access floor system re-engineered to overcome the challenges faced in data centers and control room environments.

The system has been designed to provide a wider span for cable management during the construction and the ease of maintenance post-handover of facility.

PANEL

USF 800 Integral trim (IT) Access floor panels are uniquely designed with hemispherical reinforcing pockets on the underside. It ensures structural strength, ultimate durability and acoustic performance.

PEDESTAL

Pedestals installed to support the panel shall be suitable to achieve a specific finished floor height from the existing floor level and shall be placed 1200 mm distance in both directions to form a rigid grid of 1200 x 1200 mm. The pedestal design shall confirm speedy assembly and removal for relocation and maintenance. The Pedestal head assembly shall consist of a 147 x 147 x 3mm embossed Plus shape head mechanically riveted to a 19mm dia rolled formed stud of suitable length and 2 check nuts for level adjustment and arresting vertical movement. Pedestal diameter and base plate will be as per design load and clients requirement. Pedestal base shall be permanently secured in position on the subfloor by effective glue and screw/ anchor fasteners.

MAIN AND ANCILLARY RUNNERS

Main runner shall be of size 40 x 80 x 2 x 1198 mm (W x H x T x L) and secondary runner of size 40 x 80 x 2 x 1158 mm (W x H x T x L) which will form a grid of 1200 x 1200 mm.

STRINGERS

The stringer shall be Box type, steel cold rolled construction for strength, lateral stability, and for enhanced rolling loads performance and to support the panels on all four sides for alignment without leaving any gap at the pedestal head preventing air leakage. The box stringer of size 17 x 34.50 x 0.80 x 598 and 17 x 34.50 x 0.80 x 582 which will be secured over the main & secondary runner at 600 mm distance to form a grid of 600 x 600 mm to support the panel. The stringer to have countersunk holes at both ends to accommodate bolting of M6 machine screws to the pedestal head assembly.

UNITILE NEX-GEN 1200MMx1200MM

EDGE SUPPORT RIGID GRID (ESRG) SYSTEM

APPLICATIONS

- ☑ Data Center
- ☑ Control Room

FACTORY BONDED FINISHES

- ☑ HPL

OTHER STRUCTURAL PARAMETERS

Soft body impact	40 kg drop from 1000 mm height - Tested as per (T12.00) of MOB PF2 PS Standards
Hard body impact	4.50 kg from 600 mm height -Tested as per (T13.00) of MOB PF2 PS Standards
Fire Rating	Class 1, as per BS 476 Part 6 & 7, and BS 476 Part 4:1970 (Non-Combustibility)

INSTALLATION TOLERANCE

Overall level before application of any load	± 1.5 mm over any 5.00 sq mt. ± 6 mm over any size of basic space
Panel Level	+ 0.75 mm before the application of any load
Panel Interchangeability installation and removal	Interchangeable (except for field cut panels) & replaceable in any of the four directions at 90^{o} increments

PANEL CONSTRUCTION

USF 800 Access Floor panel is of size 600 x 600 mm, it is all steel welded construction with an enclosed bottom pan of hemispherical cones and the plain top sheet is fuse-welded at 144 locations to form a panel.

The hollow panels are pretreated and coated with electrostatically deposited powder coated 60 - 80 micron thick on all the exposed sides of the panel. The hollow core of the panel is injected with a lightweight, fire retardant, noncombustible cementitious compound at high pressure to ensure support of not less than 90% of the top surface area of the panel.

The panel is then laminated with floor grade Antistatic Laminate on a semi-automated lamination line to ensure maximum bonding to the steel surface. **The edges of the laminated panel should be an Integral trim without beeding.**

ELECTRICAL RESISTIVITY

Test method as per NFPA 56A (ASTM D257)

Anti-static range	$1x10^{9}$ - $2x10^{12}$ Ohms (surface to surface)

FABRICATION TOLERANCE

Floor Panel Flatness	± 0.75 mm in any direction
Floor Panel Width or Length from specified size	± 0.50mm
Floor Panel Squareness	± 0.38mm

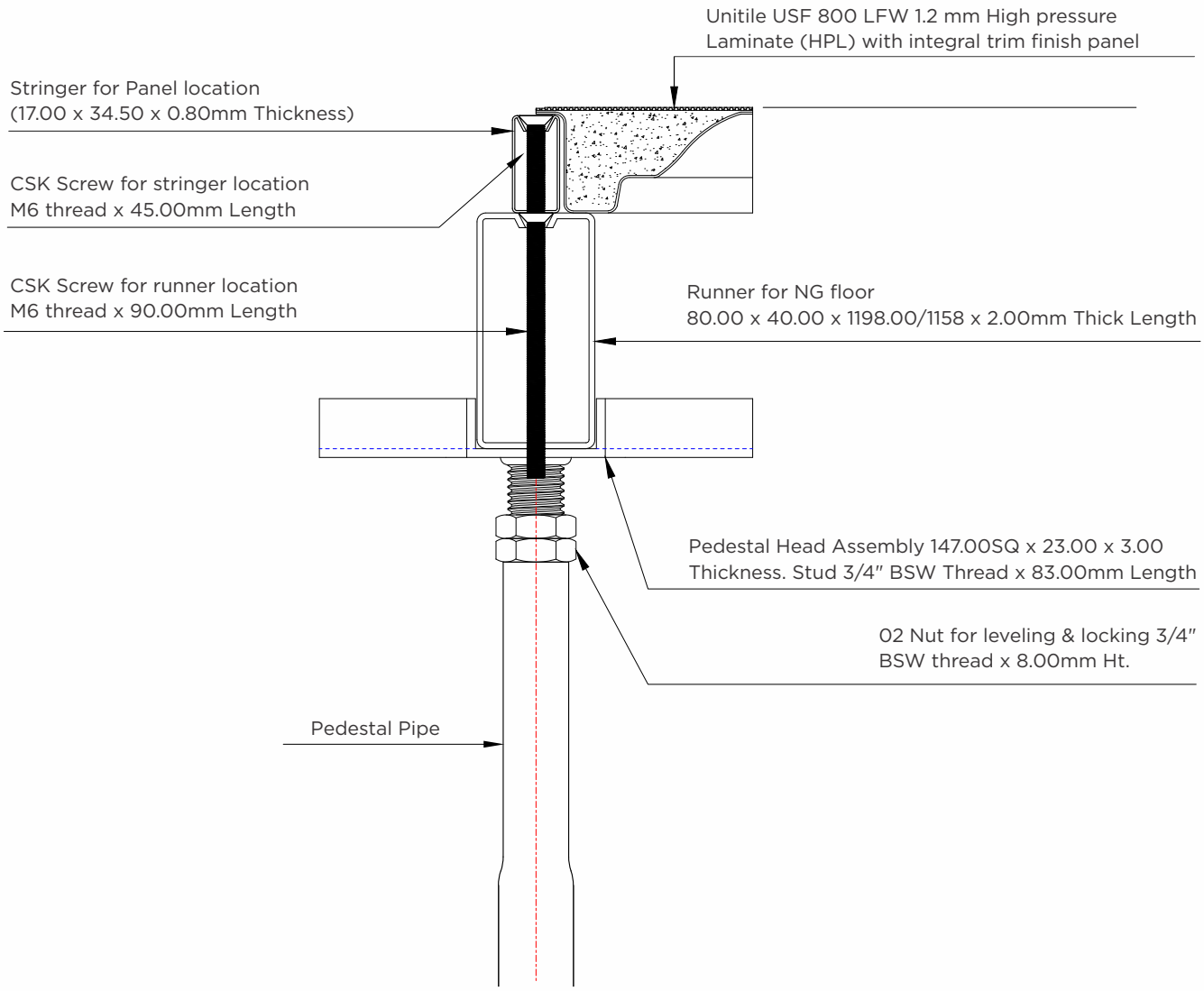
SPECIAL APPLICATIONS

Ramp Pedestals	Pivot head pedestal to support angled ramp panels

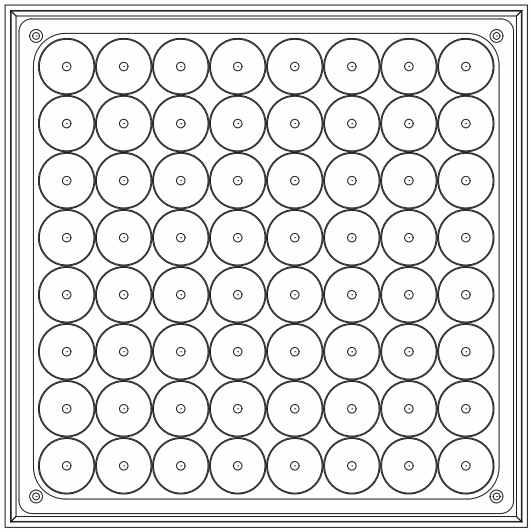
Note:

- The above mentioned loading parameters are derived & defined on the basis of the tests performed by the manufacturer based on the guidelines provided by the specified standards or as per manufacturer's recommendations.
- Manufacturer has all the rights to change or revise the specifications as and when applicable or required without the prior notice.

UNDERSTRUCTURE



PANEL BOTTOM VIEW



PANEL CONSTRUCTION

