



ENGINEERED STRUCTURAL CEILING SYSTEM

Overhead Load-bearing Infrastructure
solution for futureproofing Data Centers



A FLEXIBLE STRUCTURAL LOAD-BEARING CEILING GRID SOLUTION

designed for the intricacies of overhead cable and utility distribution



Expandable



Reconfigurable



Relocatable

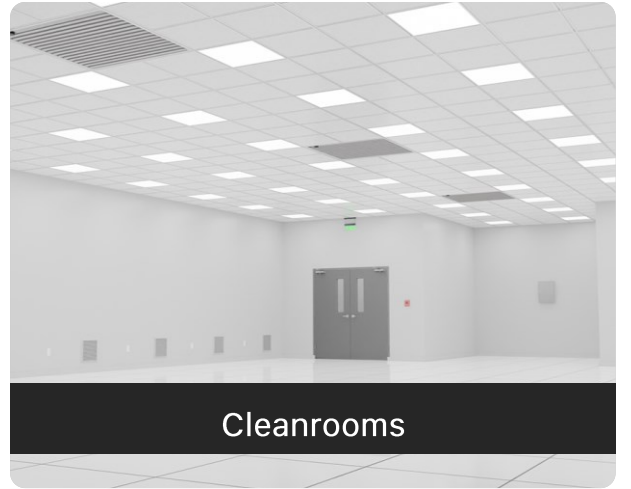


Sustainable GREEN product



Non-combustible system

APPLICATIONS





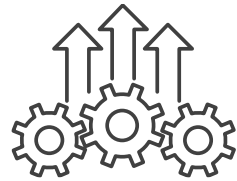
INDIA'S NO 1.
RAISED ACCESS FLOOR BRAND

[Click here to watch video](#)

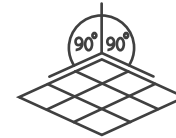
DISTINCTIVE DESIGN FEATURES



Lightweight system is made up of special grade structural aluminum alloy extrusions and die-casting components.



The **continuous threaded slot** serves as a support structure for all overhead services and fixtures, allowing for the easy installation of firefighting systems, LV tray, and HV tray (busbars, sensors and detectors, lights, CCTV camera, and other such utilities) at any location.



The suspensions are precisely positioned at a **90 degree angle to ensure optimal alignment** between the room void and ceiling void.

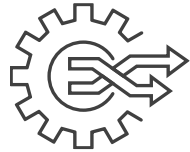


90% of the components are made of aluminium, **minimizing the possibility of zinc whiskers**, thereby reducing the risk of potential hazards.

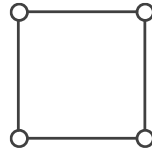
DISTINCTIVE DESIGN FEATURES



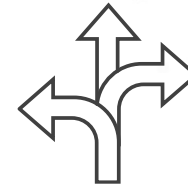
It provides the advantage of **drop ceiling and overhead utility distribution**, all in one system.



This system is designed as an **attachment platform for hot and cold aisle containment barriers**, partitions, and surface-mounted service equipment.



The maximum grid point load is **4.0 kN/400 kgs** based on a building connection spacing of 1200mm on center.



The overhead plenum is **easily accessible with designated openable panels** without compromising the structural integrity of the structural grid and the services supported below.

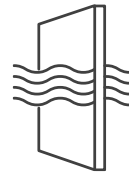
DISTINCTIVE DESIGN FEATURES



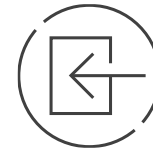
Non-combustible and 100% green and recyclable product offers rapid installation with quick and easy assembly on-site.



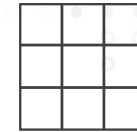
The entire construction is pre-engineered off-site at the manufacturer's location, facilitating the **ease of expansion or upgradation** of the project.



Non – penetrative system posing no risk of harmful debris, air or smoke penetrating the data center environment and potentially compromising performance of the server.

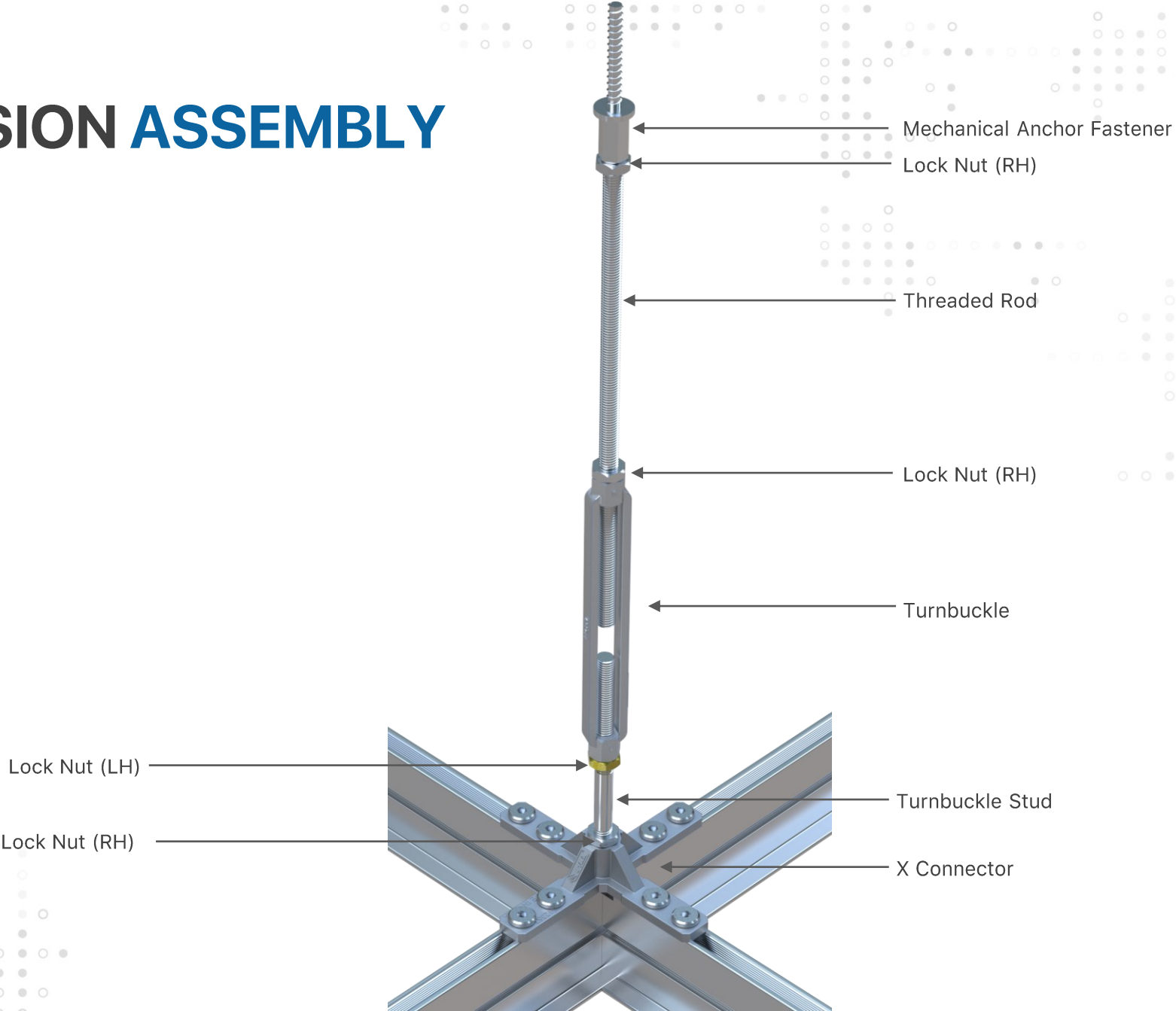


The grid system is modular and completely **relocatable**, offering high flexibility in busbars, cable tray distribution systems, and **seamless transition for airtight containment system**.



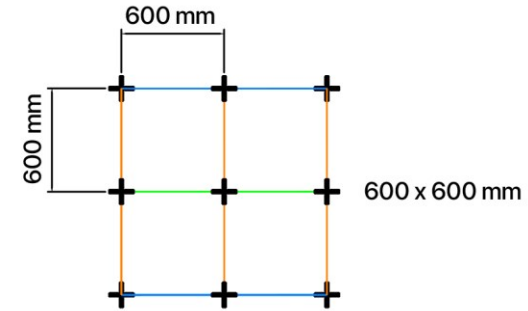
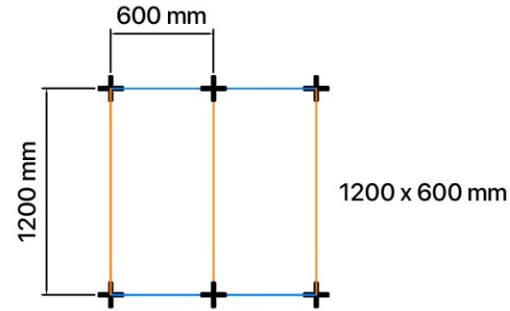
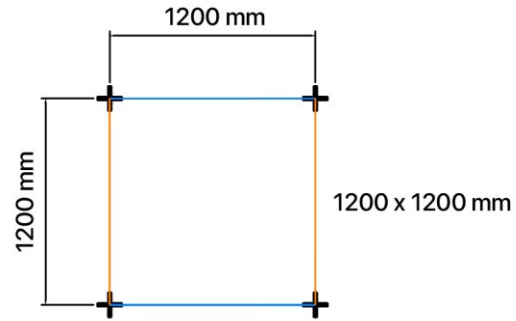
Flexibility to customize the grid span into larger and smaller grids as per project requirements/ conditions, and accommodate ceiling tiles in the future if needed. Layouts are available in **600 x 600mm, 600 x 1200mm, and 1200 x 1200mm**.

SUSPENSION ASSEMBLY

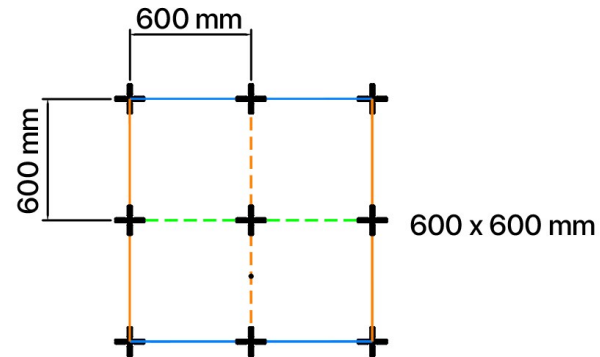
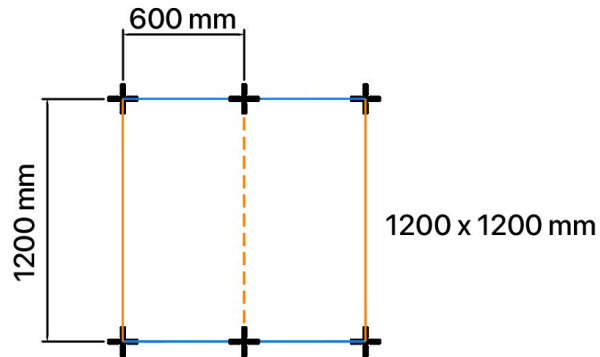


GRID SIZES

TYPES OF PANEL GRID WITH REGULAR PROFILE



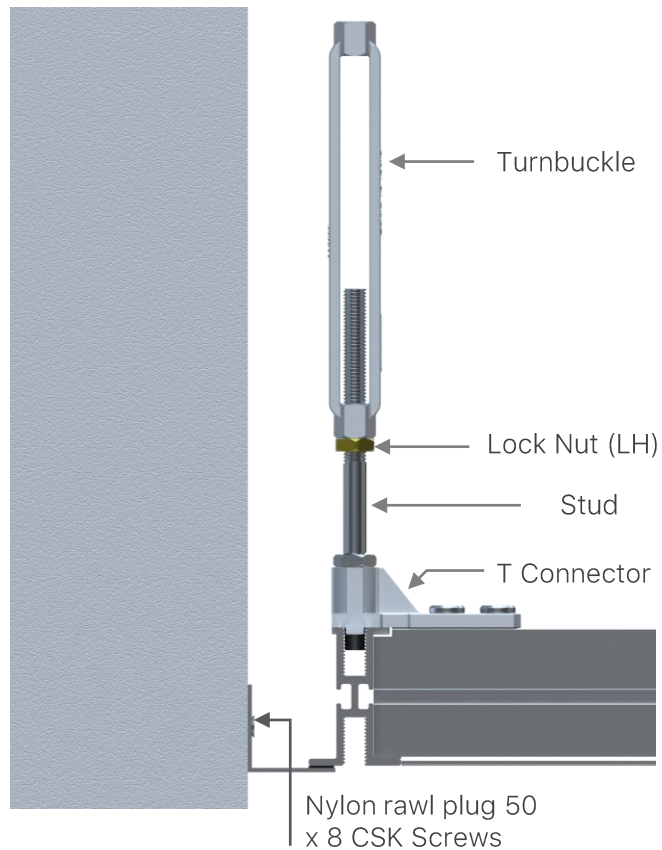
TYPES OF PANEL GRID WITH LIGHT DUTY PROFILE



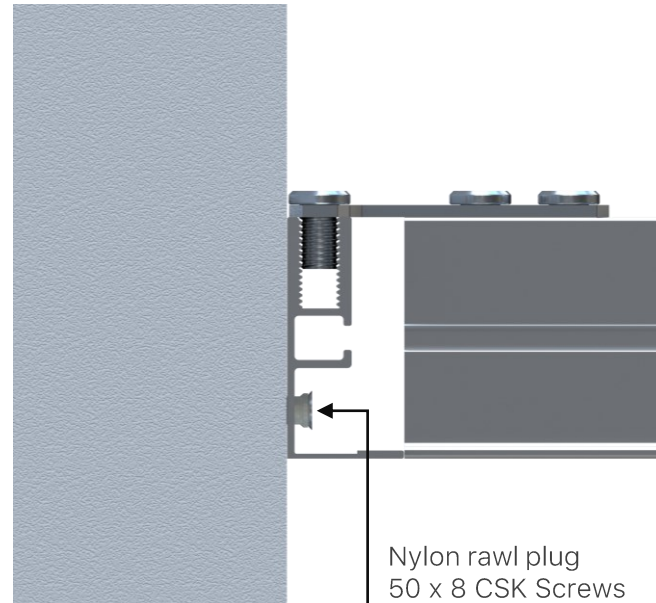
- Main Runner
- Cross Runner 1200
- Cross Runner 600
- - - Light Duty Extrusion 1200

INSTALLATION ON PERIMETERS (BRICK/ CONCRETE/ DRY WALL)

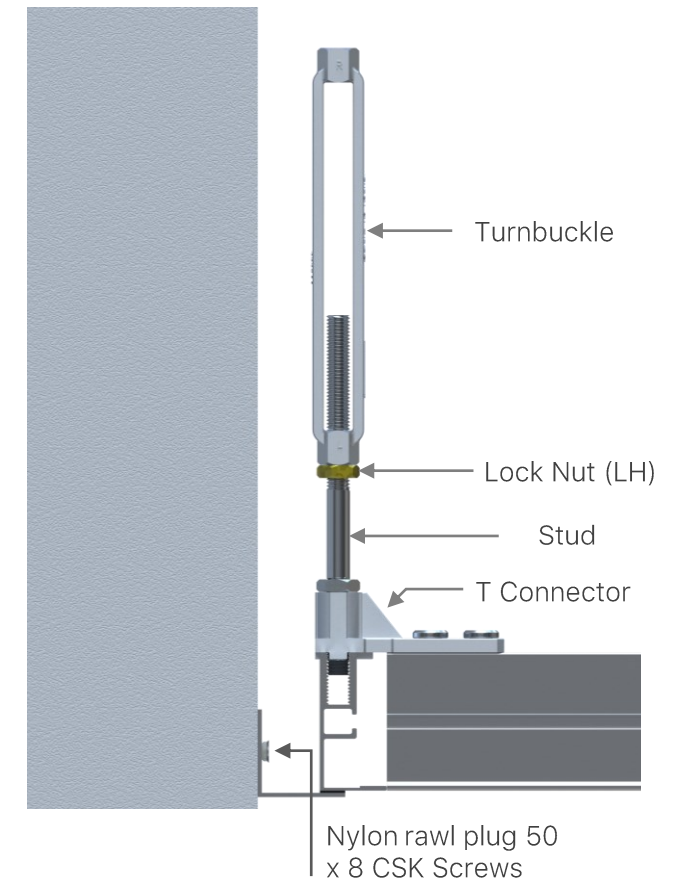
Main extrusion
with rod-drop support



Light-duty
extrusion directly on the wall



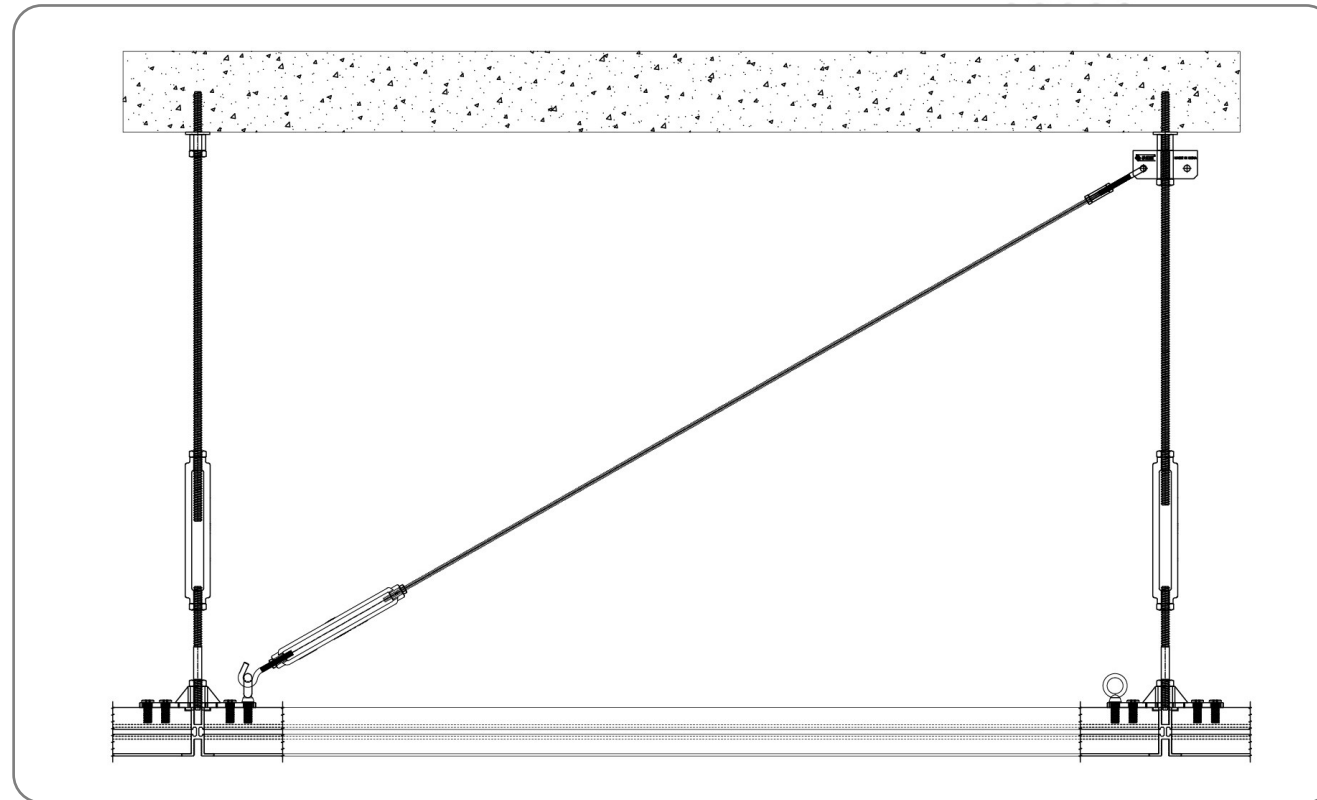
Light-duty
extrusion with wall angle



SEISMIC CONSIDERATIONS (COMPONENTS)


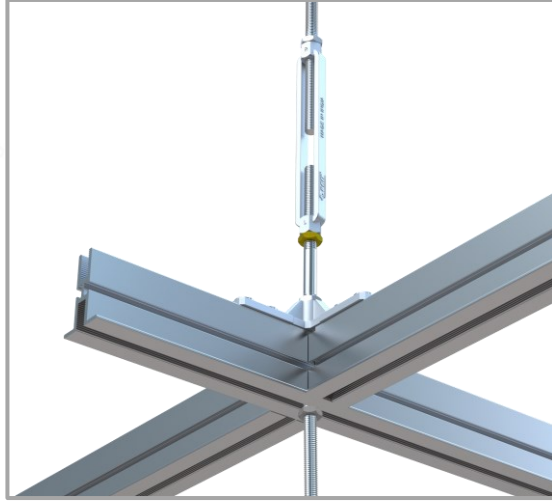
Seismic Support

The intent of seismic design is to minimise risk and reduce damage to the structure. The following seismic design solutions are available.



Support with angle

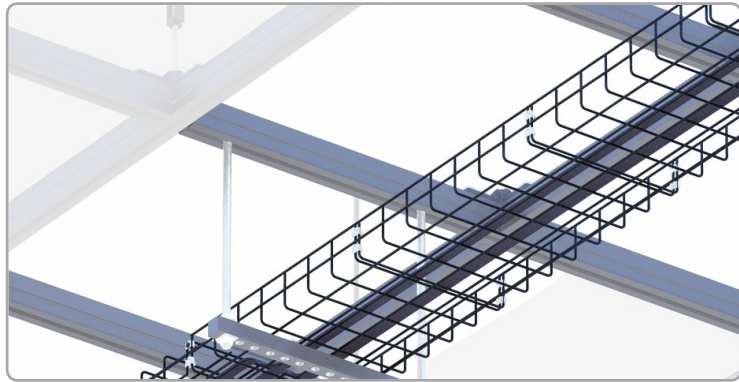
SYSTEM PERFORMANCE CRITERIA

System Performance Criteria		
Hanging Method	Grid Load Performance with building connections 1200mm x 1200mm on mid span	Above ceiling suspension
Point Load (kN)	2.21 kN*	4.0 kN*
Ultimate Point Load (kN)	3.68 kN	6.00 kN

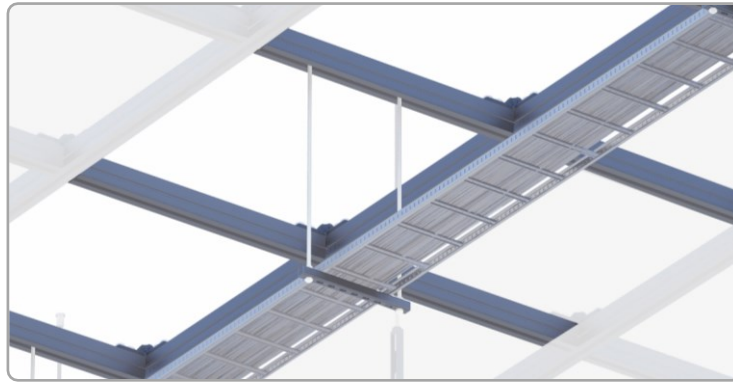
*Max point load not less than 1200mm apart in any direction.

CONTINUOUS SLOT FOR SERVICE UTILITIES

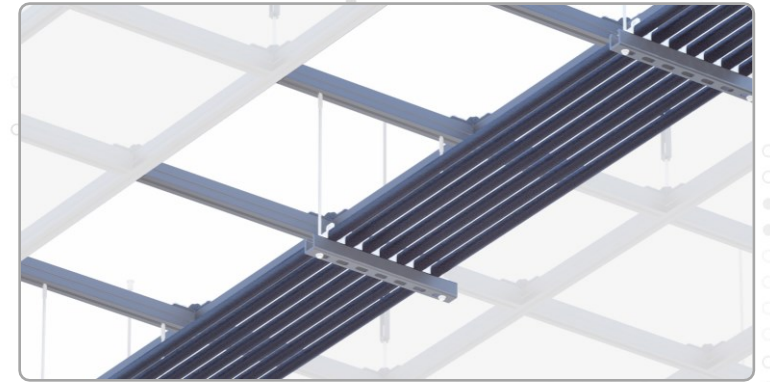
Designed for maximum flexibility with a continuous threaded slot for various utility support at any location.



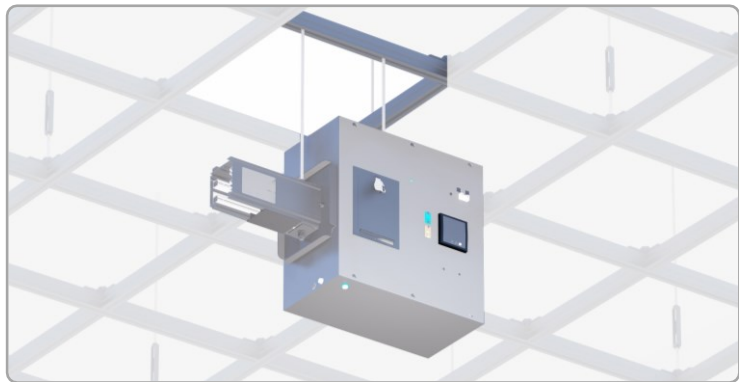
CABLE TRAY BASKETS



IT CABLES AND ACCESSORIES



ELECTRICAL CONDUIT



BUSBARS

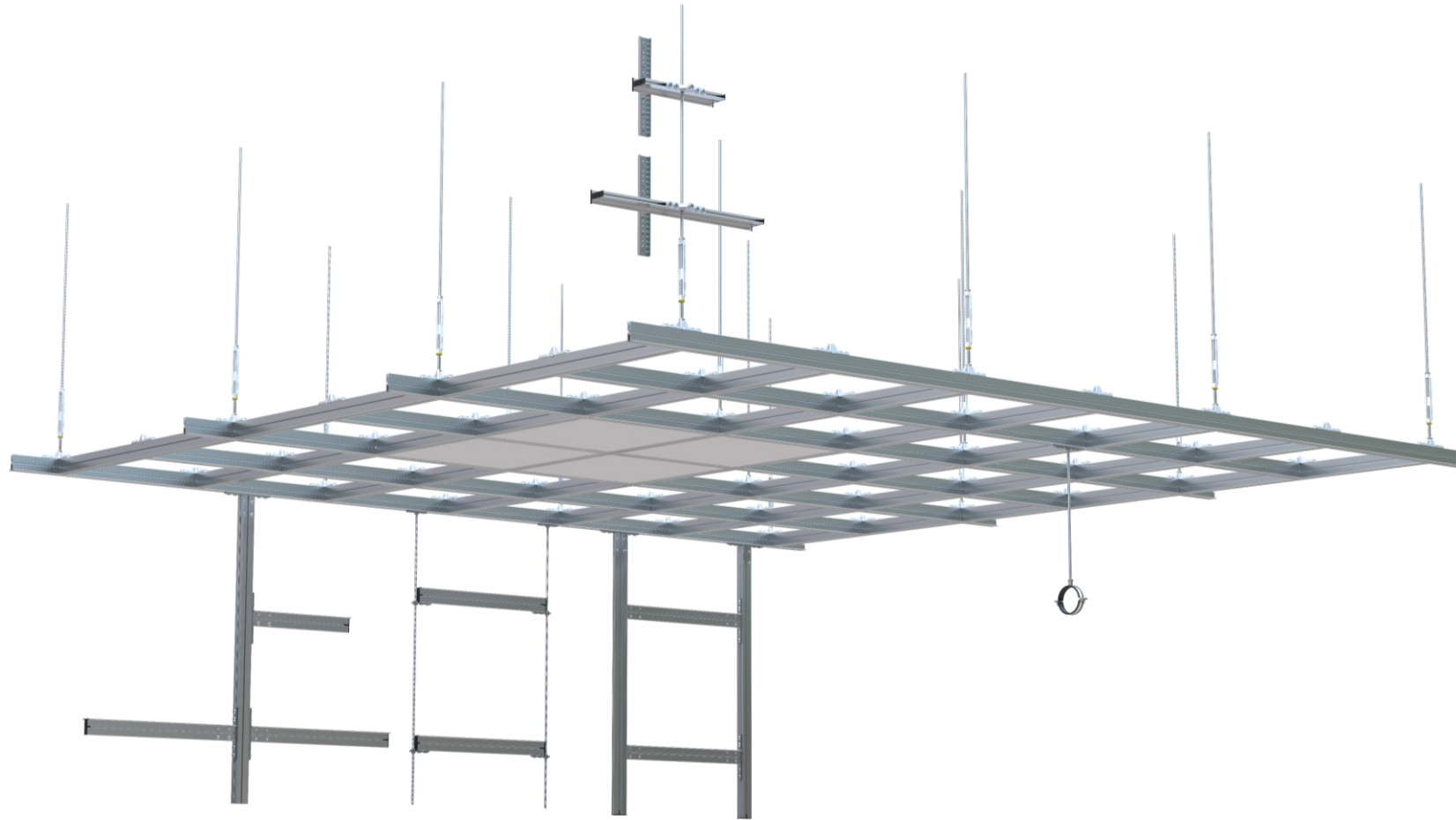


INDICATING PLATES & SIGNAGES



WIRE BASKET

CEILING GRID WITH SUPPORTING SERVICES BELOW AND ABOVE THE CEILING PLENUM



PURPOSE BUILT MODULAR ACCESSORIES

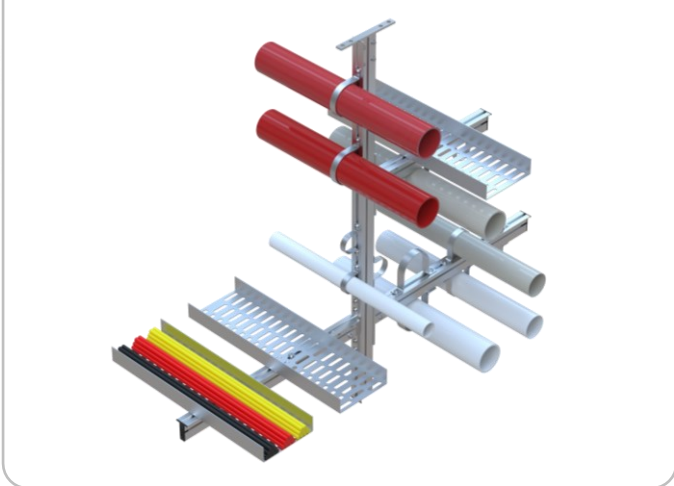
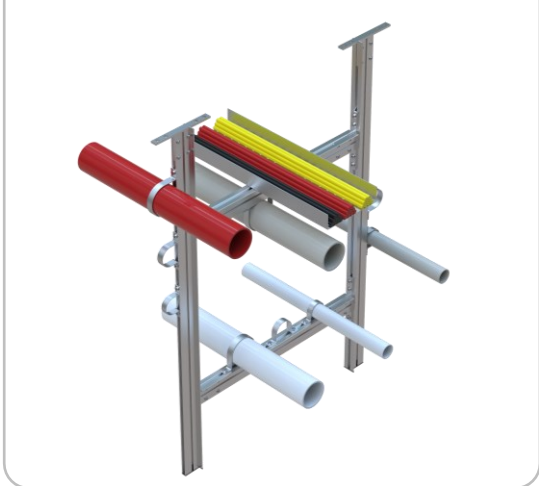
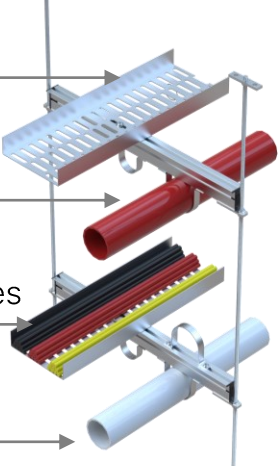
Suspended Services below the Ceiling

Cable trays

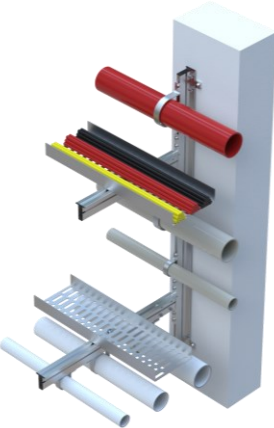
Fire hydrant pipes

Electrical Wires and cables

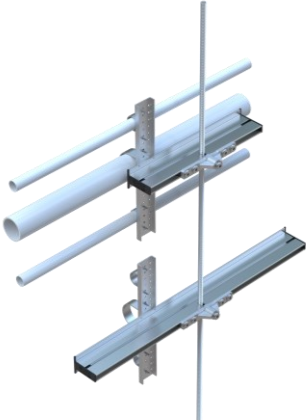
Other piping services



Wall supported frame



Support above the plenum



Support from the ceiling

Rod-drop support directly from the ceiling



STAY AHEAD OF THE HEAT CURVE

Hot aisle containment (HAC) with optimal cooling for uninterrupted performance

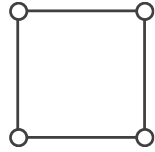


DISTINCTIVE FEATURES



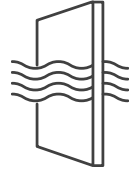
Relocatable & Reusable

The grid system is modular and completely relocatable, offering high flexibility in busbars, cable tray distribution systems, and seamless transition for airtight containment system.



Secure Enclosure

It offers a secure enclosure to contain the air and dust, preventing their release into the surrounding environment.



Reduced Contamination from Above

Data centers are complex environments, and air contamination can come from various sources, including above the equipment. A structural ceiling acts as an additional layer of protection, preventing contaminants, such as dust or particles from the building's infrastructure, from entering the data center and mixing with the hot aisle air.



Scalability and Flexibility

The structural ceiling design allows for easy expansion and modification of the hot aisle containment system, accommodating changing data center needs.

TRANSITION DETAILS WITH STRUCTURAL CEILING

Benefits of using a structural ceiling for transition:



Seamless integration between the containment system and the structural ceiling



Improved efficiency in airflow management



Airtight enclosure, effectively eliminating bypass air leakage

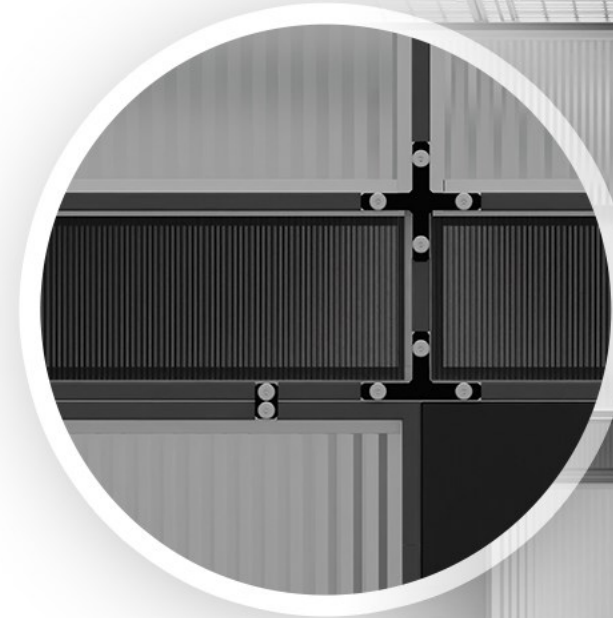


Enhanced thermal containment

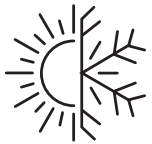


SLIDING BRUSH ATTACHMENT

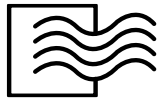
A specialized attachment that ensures a tight seal between the structural ceiling and the hot aisle containment system



DISTINCTIVE FEATURES



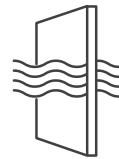
Ensures effective separation of hot and cold air streams



Minimizes the risk of hot/cold air recirculation



Enhances energy efficiency by reducing cooling requirements



Prevents air leakage between the structural ceiling and the containment system

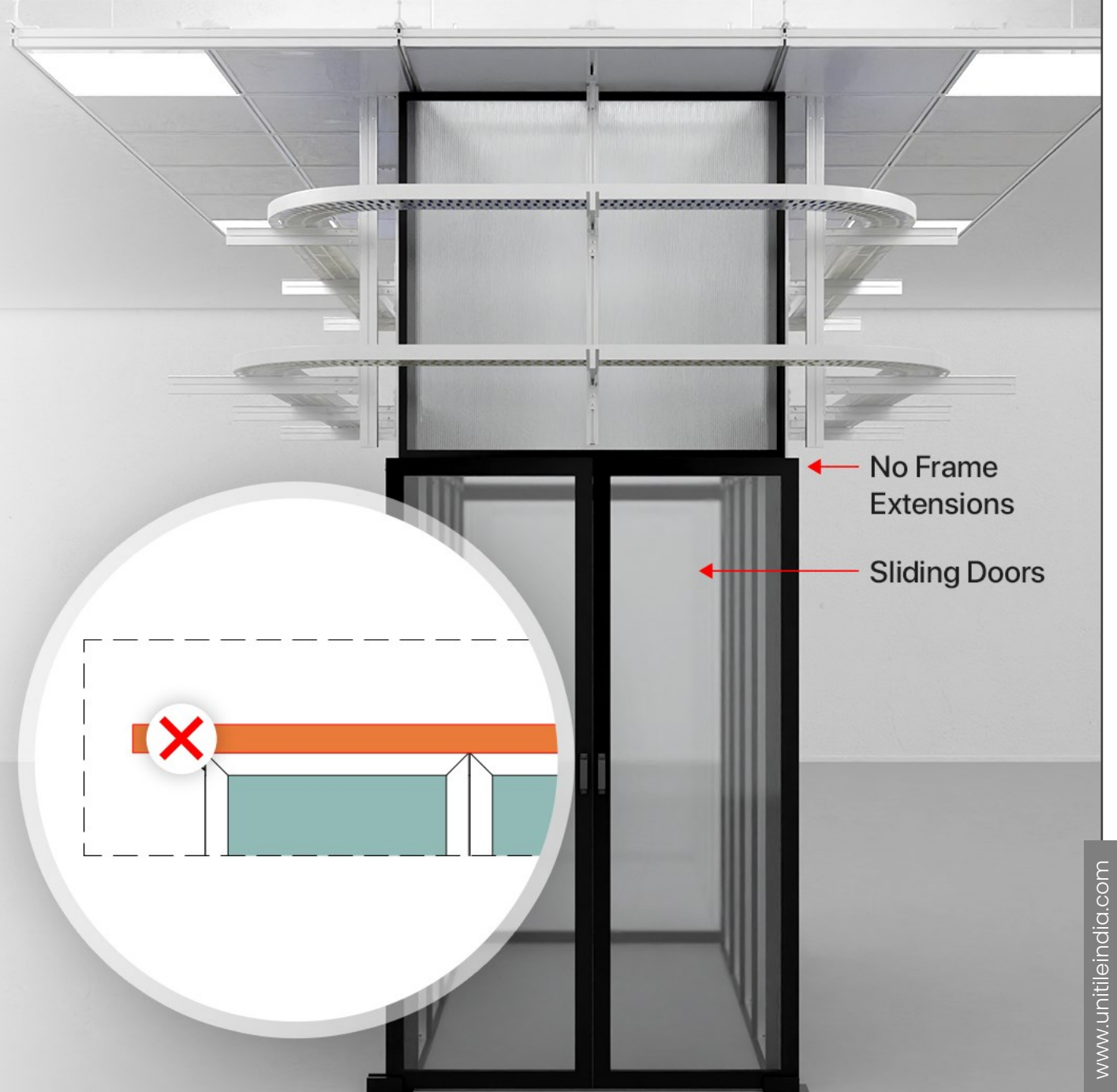


Allows easy access for maintenance and cabling installation



MODULAR HAC DOOR

- Seamless sliding, with no unsightly extensions.
- Sliding arrangement is integrated and concealed.
- Heavy-duty for added durability.
- Top-quality hardware from Japan and Taiwan, with no compromise on quality.
- An auto-stop and push-back close lock for added safety.
- Sleek and aesthetically designed door.
- Synchronized opening for added convenience.

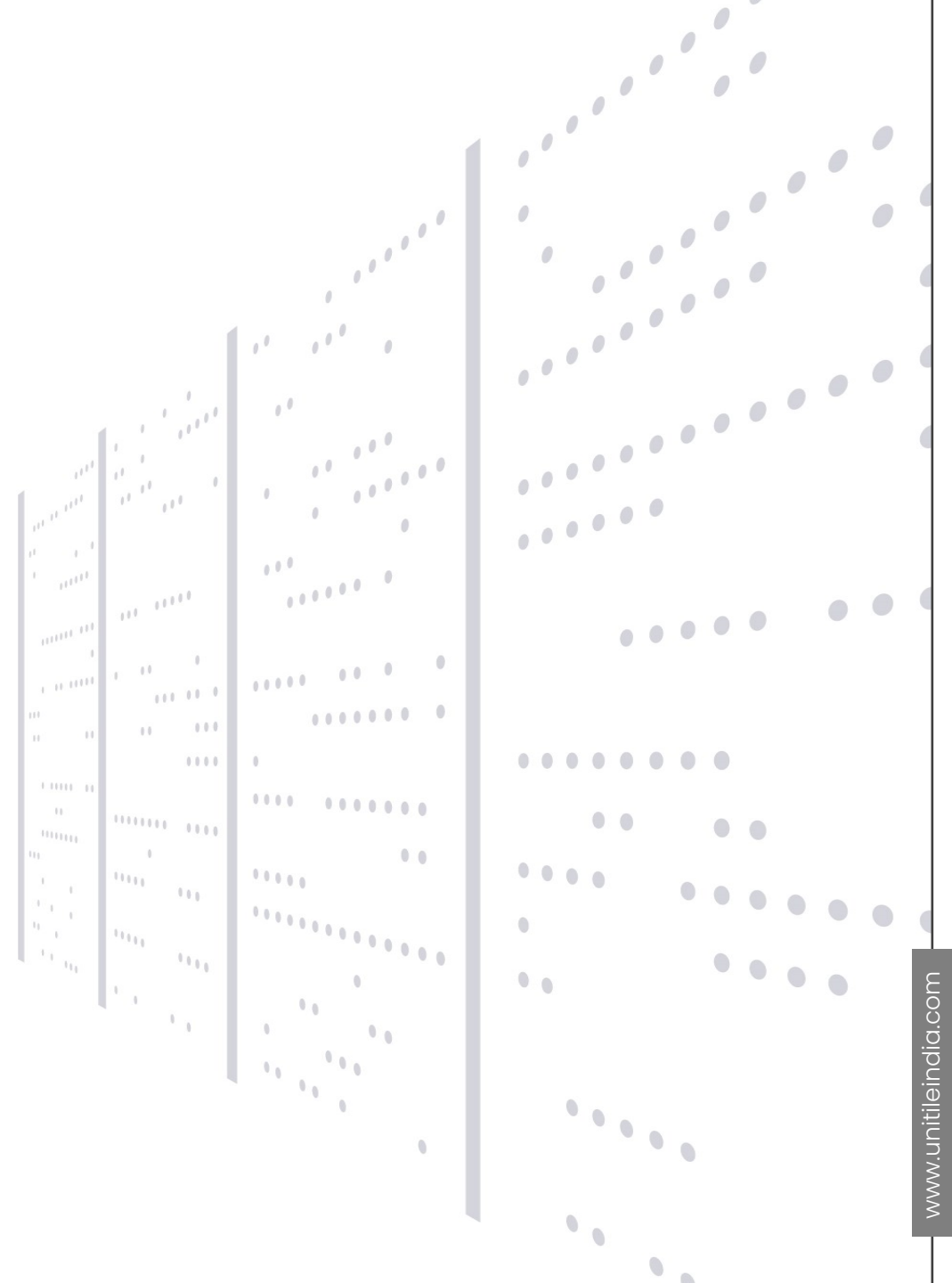




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COMPANY CAPABILITIES





30 Years
of leadership
and legacy



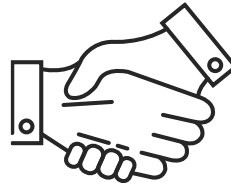
100 mn sq. ft.
of workspaces
transformed



15 mn sq. ft.
annual production
capacity



8 offices
across India



15k+ clients
across the globe



500+ Unitilers
Growing with
40+ partners

CERTIFICATIONS AND COMPLIANCE



World-class quality



Environmental conscientiousness



Health and safety measures



Fire certification
Bell-wright UK



Acoustics certification - ARAI



Indian Green Building Council



Singapore Green Building Council (SGBC)



Excellence guaranteed with third party tested at TÜV SÜD PSB, Singapore



Certified by Bureau Veritas, France

DATA CENTER – KEY CLIENTS



THANK YOU

