



DATA CENTER
SOLUTIONS



SEISMIC ISOLATOR SYSTEMS



Founded in 2003, SAMP Technology offers cutting-edge products and services in the fields of telecommunication infrastructure and data center by producing in line with the expectations and needs of its customers.

With more than 20 years of experience, SAMP Technology has become one of the important suppliers of Europe in terms of capacity, technology and innovation by continuously investing in production, technology, R&D and people.

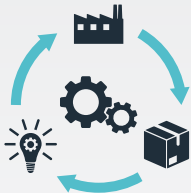
SAMP Teknoloji produces high performance fiber optic cables, fiber optic cable assemblies, data center infrastructure products and structured cabling solutions in its two factories located in the Gosb/Gebze industrial zone.

SAMP also has a ministry-approved research and development center since 2017.



20+ Years' Experience

With more than 200 employees and 2 factories, we have achieved several significant projects in telecommunication fiber optic infrastructure.



World Class Production

With systematic and scientific methods, we always focus on reaching the highest quality in our fiber optic cable production and assembly lines.



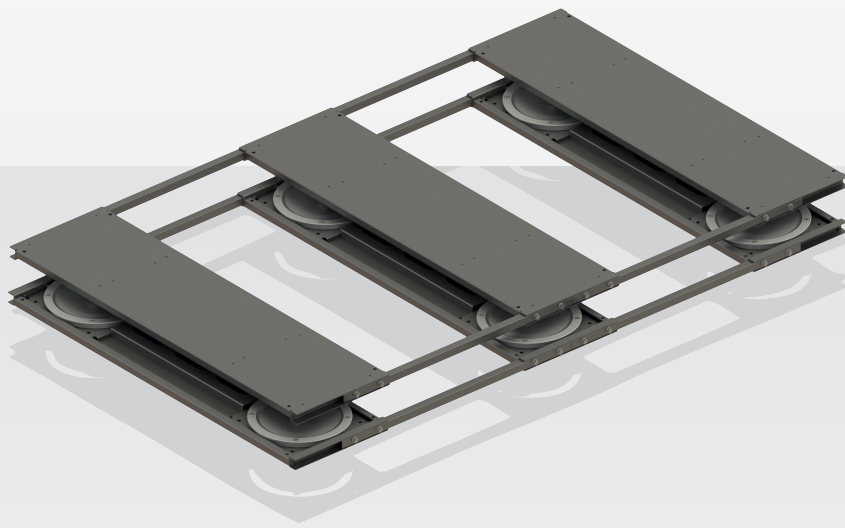
Connecting Continents

An advantageous shipping location, at the intersection of Asia, Europe and the Middle-East.



Innovative Solutions

We are passionate about responding to customer demand and keeping pace with the ever-evolving telecommunication and fiber optic technologies.

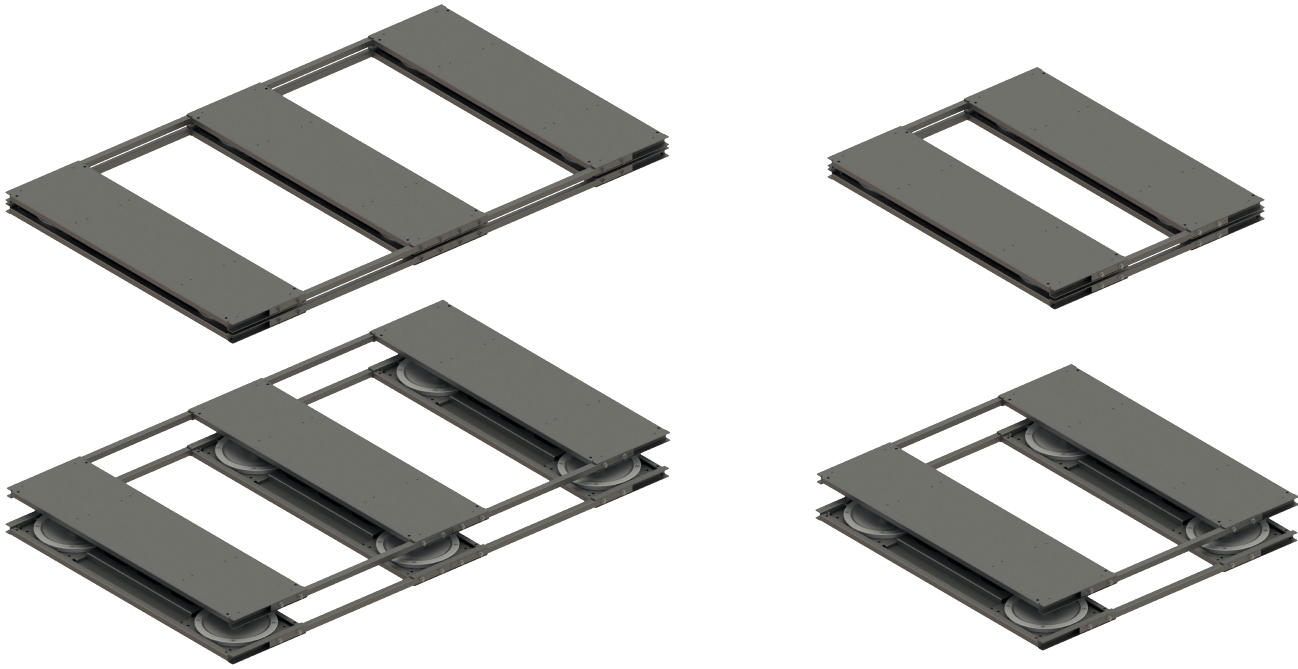


**DATA CENTER
SEISMIC ISOLATOR
SYSTEMS**

Data Center Seismic Isolator

Seismic isolators for data centers are used to safeguard them from earthquakes. During the earthquake, the data center with seismic isolator, as well as all other environmental systems (electricity, generator, etc.), remain operational. Our seismic isolating system has been tested and authorized in compliance with GR-63 (Zone-4) regulations, and it is employed by mounting on the data center floor. Its seismic isolator design makes it appropriate for usage in various sizes and weights of data centers. The load capacity is xxx kg.

Two specifically constructed seismic isolator modules make up a seismic isolator platform. A seismic isolator module is made up of two plates and a frictional ball. Seismic isolators can be used for single or multiple purposes.



Products Coding

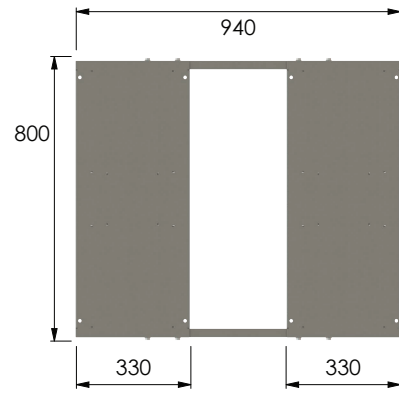
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	A	D	H	L		
XX1	330	800	77	602	600x600	62.5 ± 2.5
XX2	330	1000	77	602	600x800	125 ± 1
XX3	330	1200	77	602	600x1000	245 ± 7
XX4	330	1000	77	802	800x800	≤ 1.5
XX5	330	1200	77	802	800x1000	≤ 5.0
XX6	330	1400	77	802	800x1200	≤ 1.0
XX7	330	1200	77	1002	1000x1000	≤ 6.0
XX8	330	1400	77	1002	1000x1200	

Features

- When determining the required quantity, request one more seismic isolator than the number of cabins.
- For example, 2 cabins side by side require 3 seismic isolators.
- Seismic modules and platforms are made with profile connections to each other.

Seismic Isolator Platform Instalation

Single Platform for a Single Cabin

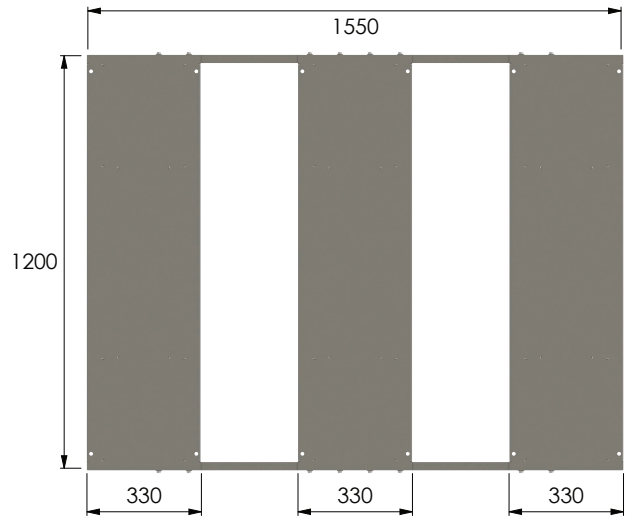


Top View of a Single Platform



Front View of a Single Platform

Double Platforms for a Two Cabins

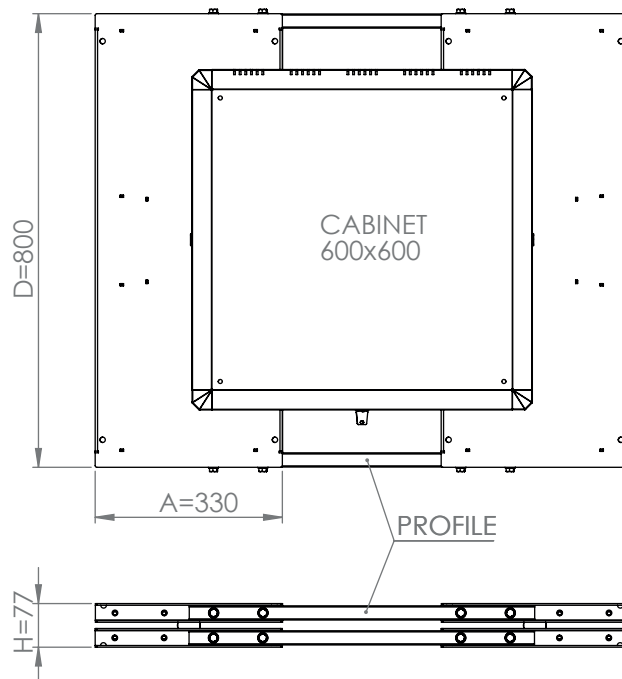
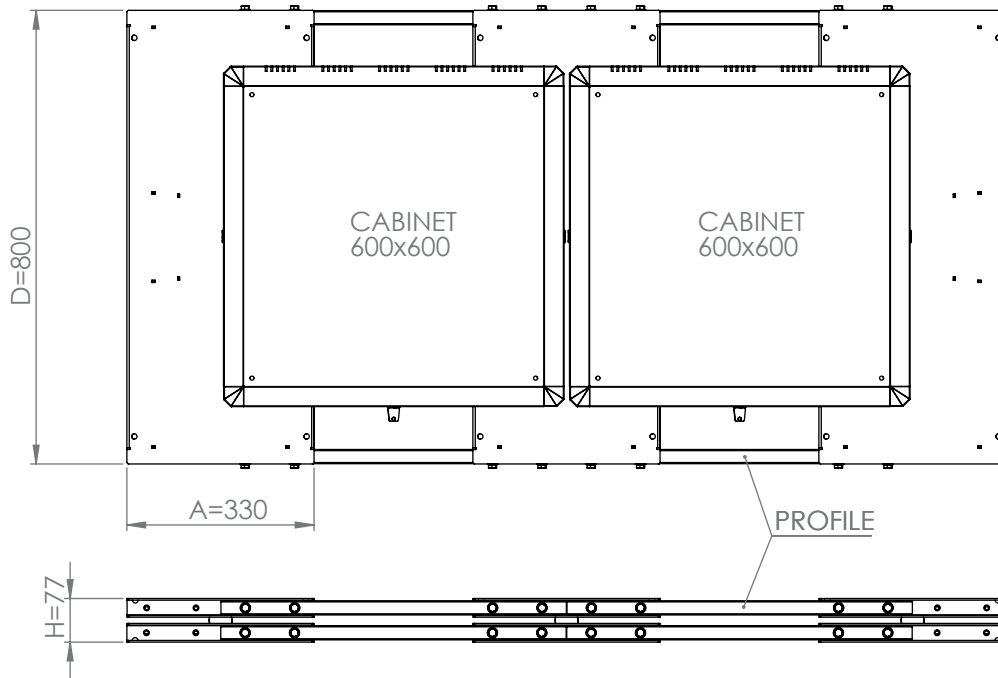


Top View of Multiple Platforms

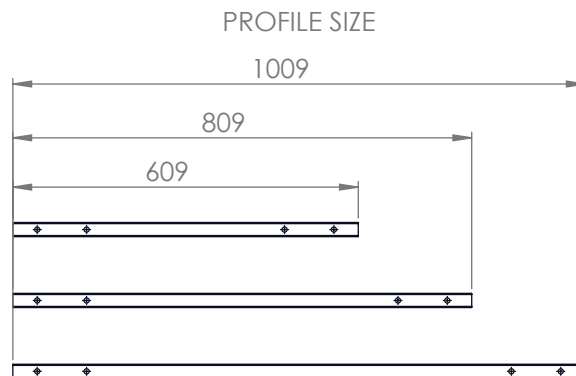
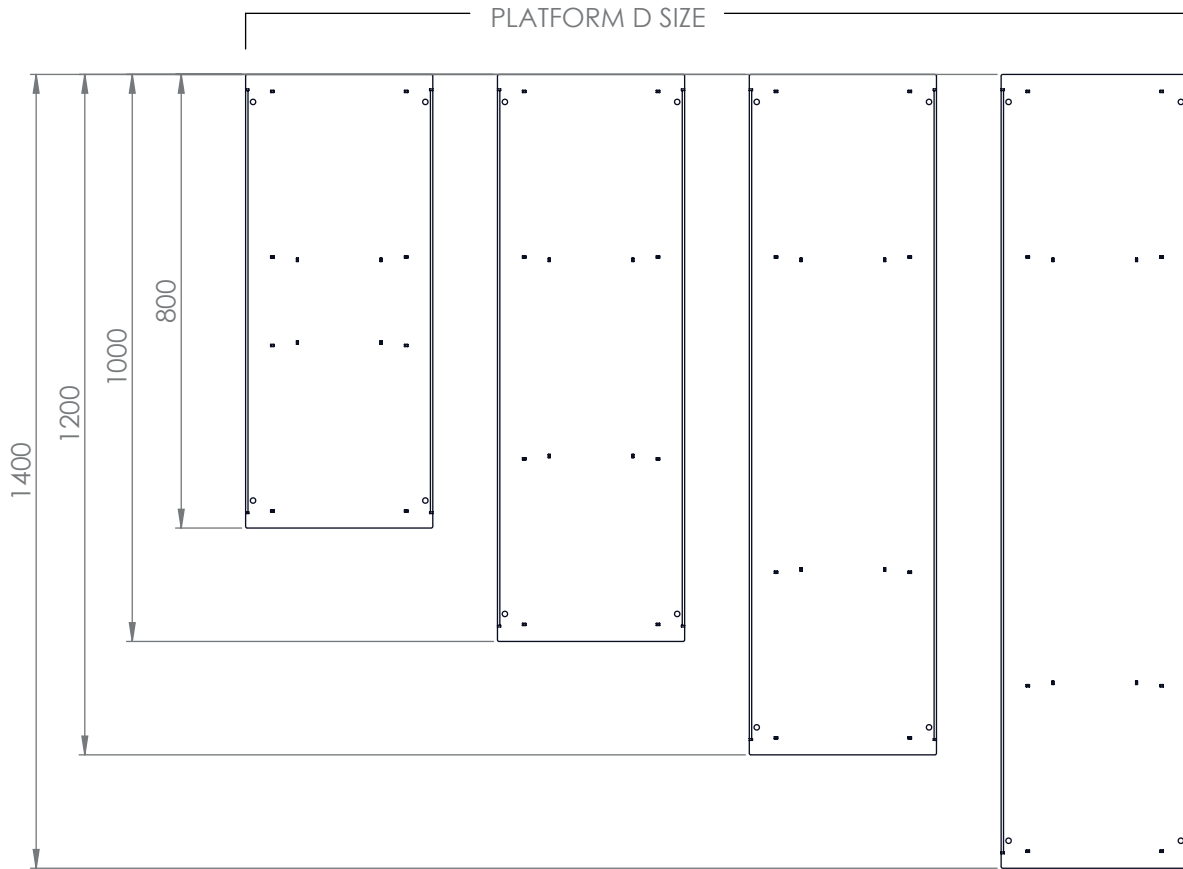


Front View of Multiple Platforms

Dimensions



Dimensions



Data Center Seismic Isolator Systems

Seismic isolators are essential components within data centers, serving as critical safeguards against the destructive forces of earthquakes. Even amidst seismic activity, data centers equipped with seismic isolators, along with all associated environmental systems such as electricity and generators, can remain fully operational. Our seismic isolating system has undergone rigorous testing and received authorization in accordance with GR-63 (Zone-4) regulations. This system is strategically mounted onto the data center floor, ensuring its seamless integration into existing infrastructure.

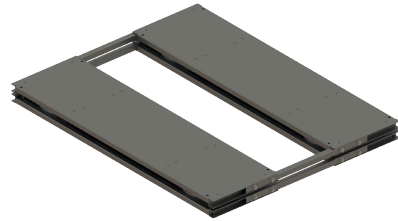
Designed with versatility in mind, our seismic isolator system is capable of accommodating data centers of varying sizes and weights. Its innovative design comprises sturdy construction structures, steel bowls, and friction balls, all meticulously engineered to mitigate seismic vibrations effectively. Whether deployed for singular or multiple purposes, seismic isolators offer unparalleled protection, enhancing the resilience and reliability of data center operations in seismic-prone regions.

Raised Floor Type - SSI-2000

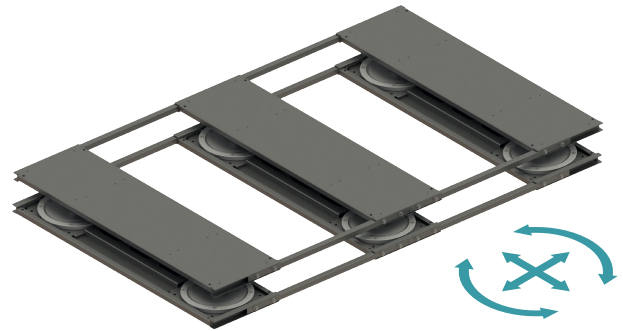


Modular Platforms Type - SSI-1000

A Single Platform for a Single Cabin



Multiple Platforms for Multiple Cabins

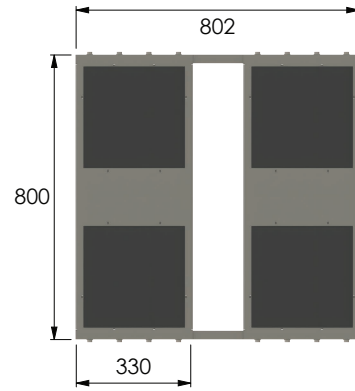


Features

- Seismic modules and platforms are constructed with interconnected profiles.
- Provide high load capacity for heavy cabinets and other equipment.
- They are specifically designed for seismic protection in data centers.
- Customized installation plans based on customer requirements.
- To determine the required quantity, request one more seismic isolator than the number of cabinets.
for example, two cabinets side by side need three seismic isolators.
- These modules are maintenance-free, and resistant to ambient conditions.
- Designed to meet the seismic conditions in Turkey.

Seismic Isolator Platform Instalation

SSI-1000 Single Platform

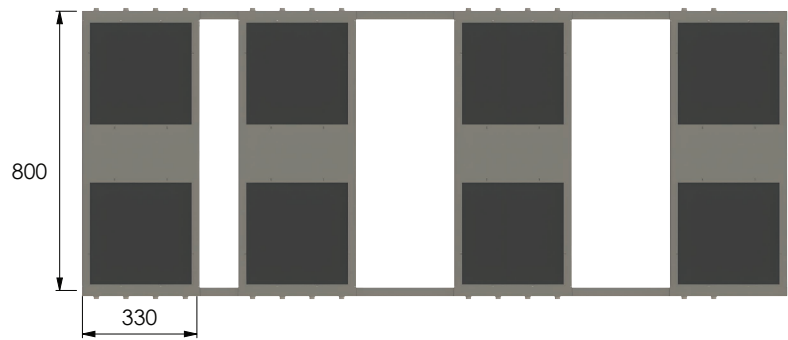


Top View of a Single Platform



Front View of a Single Platform

SSI-1000 Multiple Platforms



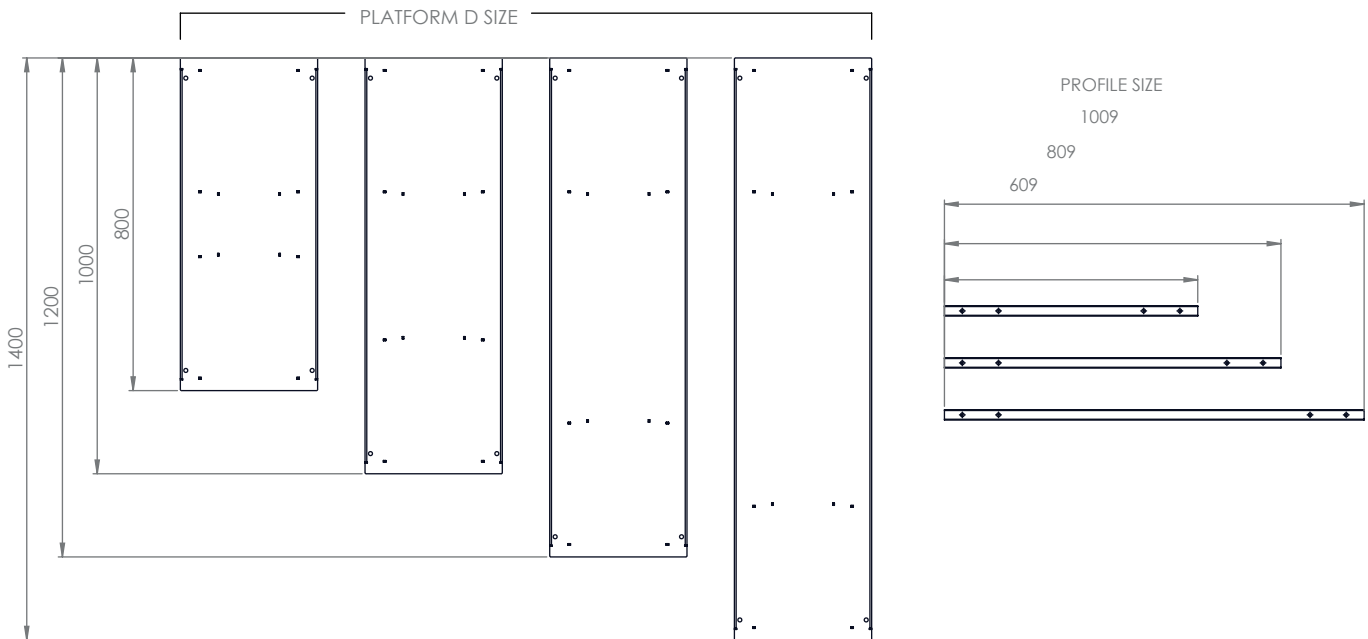
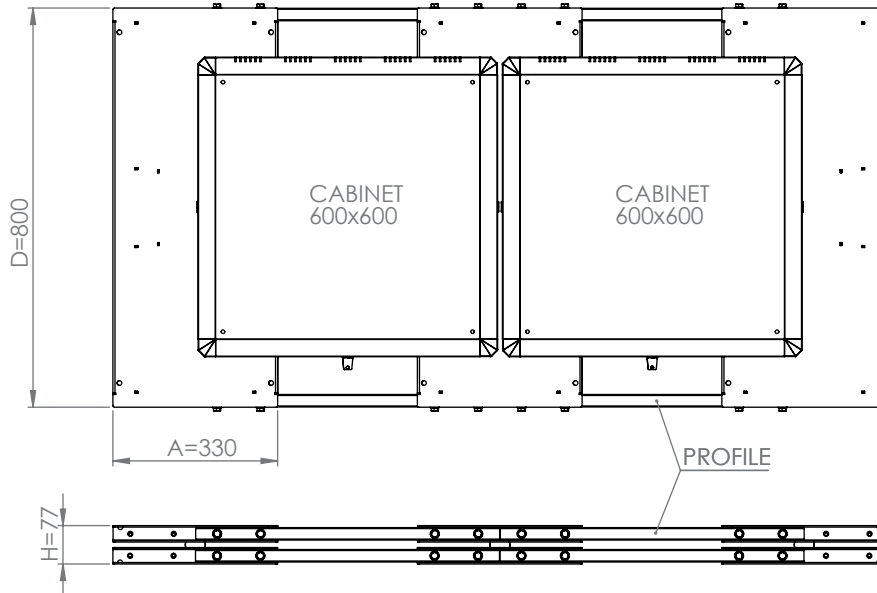
Top View of Multiple Platforms



Front View of Multiple Platforms

Dimensions For SSI-1000

Single and Multiple Platforms



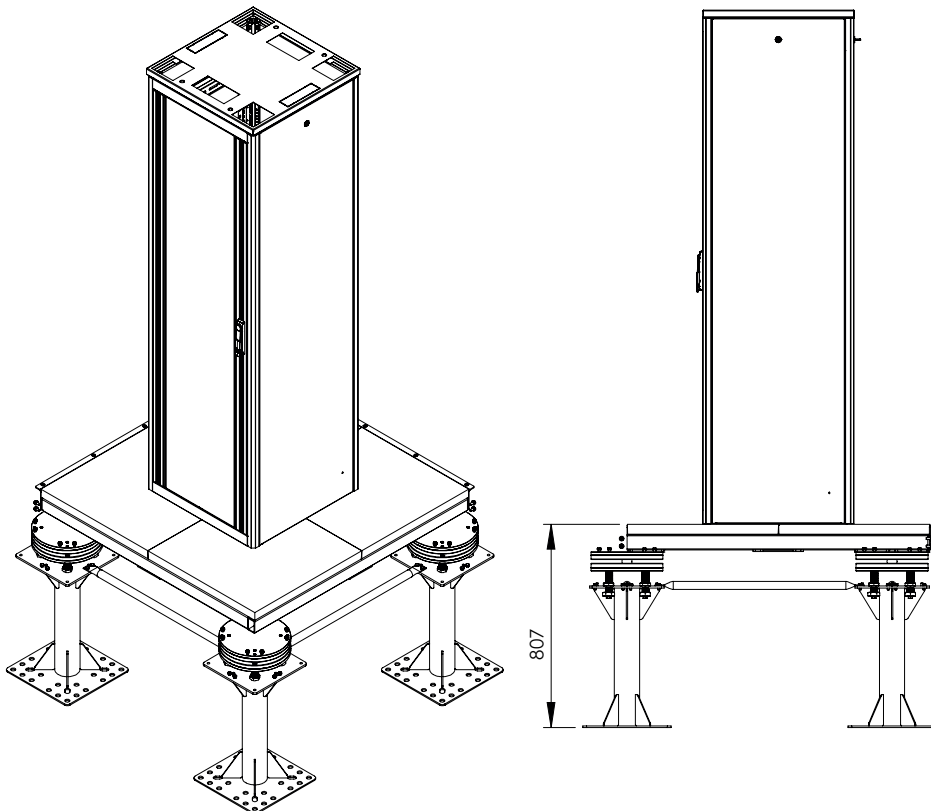
Seismic Isolator Platform Instalation

Raised Floor Type - SSI-2000



Dimensions For SSI-2000

Raised Floor Type - SSI-2000

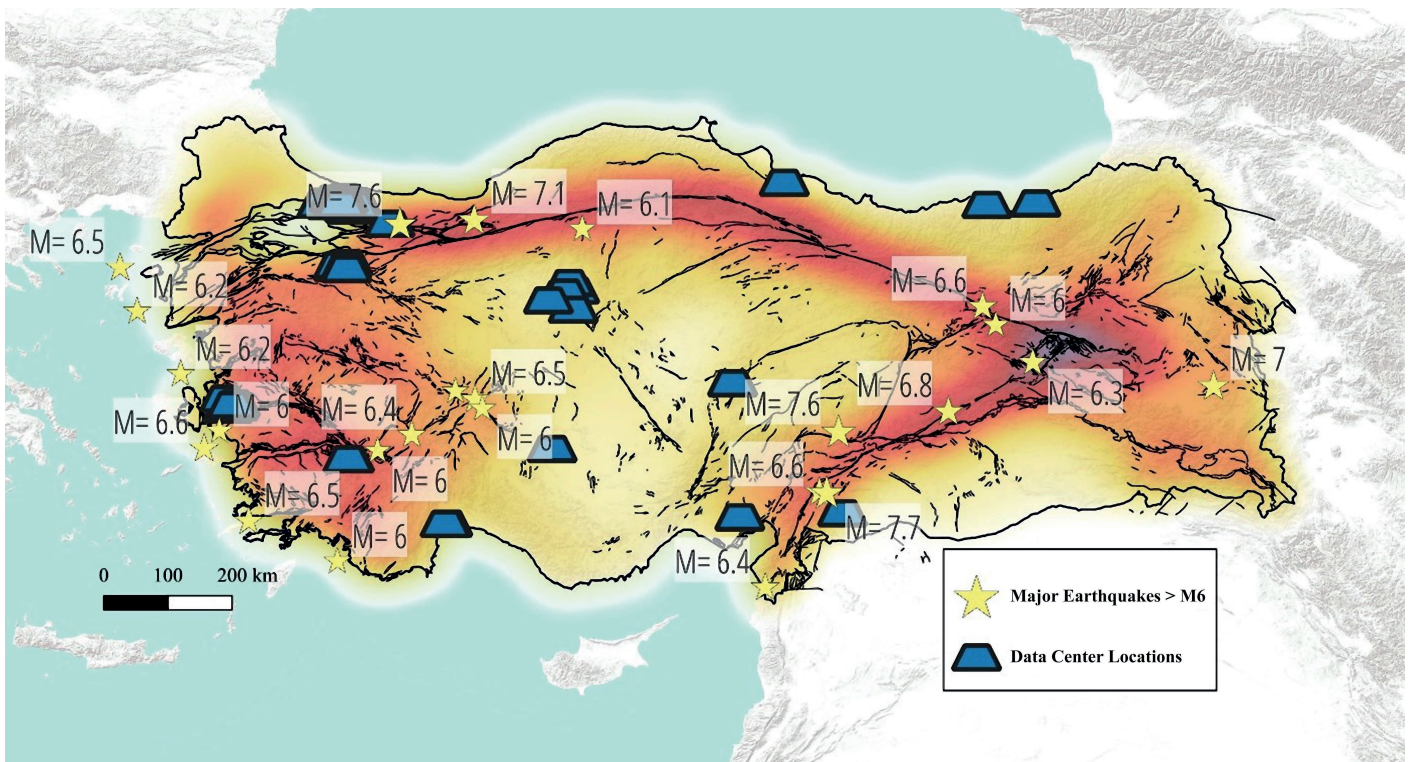


Products Coding For SSI-1000

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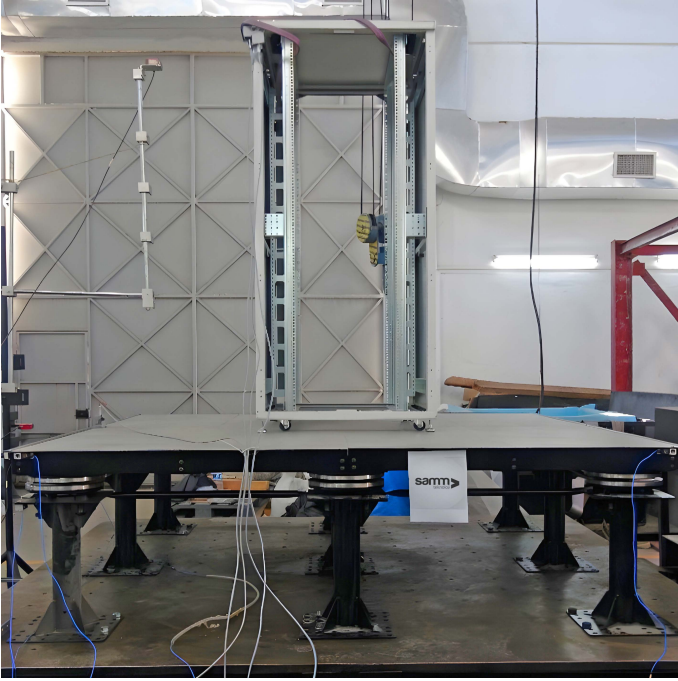
Related Info

The epicenters of major earthquakes in Turkey and the locations of important data centers provide valuable insights into the seismic risks faced by critical infrastructure. Understanding the proximity of data centers to earthquake-prone areas is essential for implementing robust disaster preparedness and mitigation strategies. This information aids in the development of resilient infrastructure designs, emergency response plans, and business continuity measures, ultimately safeguarding data integrity and minimizing potential disruptions in the event of seismic activity.



* Epicenters of major earthquakes and vulnerable data centers in Turkey

Shaking Table Test



Seismic tests were thoroughly carried out on the Data Center Seismic Isolator SSI-2000, utilizing advanced methodologies to replicate the seismic conditions witnessed during the devastating 1999 Izmit earthquake. Using a sophisticated shaking table device, the experiment attempted to recreate the seismic forces acting on the isolator under real-world earthquake circumstances.

The results of the testing experiment proved highly promising, as no evidence of system deformation emerged from the detailed analysis. Furthermore, a comprehensive inspection of the structure's construction revealed no signs of damage, affirming the robustness and effectiveness of the seismic isolator. These results show that the SSI-2000 works well in earthquakes and also prove how carefully it was designed and engineered.

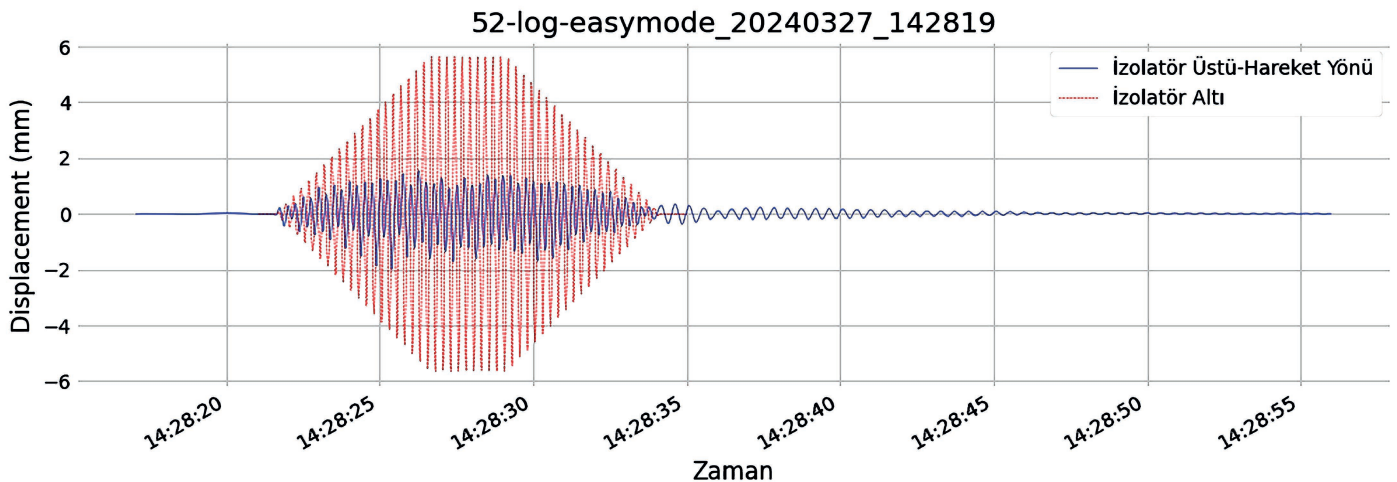
Damping Performance Analysis

To understand how well the damping system works in the shaking table test, we used accelerometers. These devices were attached to both the shaking table and the system itself. The accelerometers measured the changes in acceleration in real-time. By analyzing these measurements, we could see how the table moved in response to the applied forces. We looked at two sets of data: one for the lower table and one for the upper table.

In the graph, you can see two lines. The red line represents the sine wave acceleration converted to displacement in millimeters. This shows how much the table should theoretically move. The blue line represents the actual response of the system. This shows how much the table actually moved. The sine waves reached a peak displacement of 6 mm, which means the table should move up and down by 6 mm. However, the upper table, also known as the isolated region, only moved a maximum of 1.8 mm.

This significant difference indicates that the isolator system is working well. The isolator system reduced the 6 mm displacement of the sine wave by 70%, bringing it down to 1.8 mm in the isolated region. This means that the isolator system is absorbing most of the movement and preventing it from affecting the isolated region as much. This is a clear and concrete example of how effective the isolator system is at damping vibrations and protecting the upper table from large movements.

In summary, the shaking table test showed that the isolator system is highly effective. By reducing the displacement from 6 mm to 1.8 mm, the isolator system successfully damped the vibrations by 70%. This demonstrates the system's ability to protect structures from the potentially damaging effects of large movements and vibrations.





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SAMM Teknoloji İletişim San. ve Tic. A.Ş.



 **TURKIYE**

Company

SAMM Teknoloji İletişim San. ve Tic. A.Ş.

Address

GOSB İhsandede Cd. 800. Sok No: 802,
41400 Gebze-Kocaeli, Türkiye

Telephone

+90 444 1 726 / +90 (262) 677 16 80
(Fax) +90 (262) 677 16 81

Email

info@samm.com

 **GERMANY**

Company

SAMM GmbH

Address

Niederstraße 18
40789 Monheim/Deutschland

Telephone

+49 176 814 655 76
+49 176 814 655 84

Email

de@samm.com

Telecom Group

Website

telecom.samm.com

Email

telecom@samm.com



Our Website