

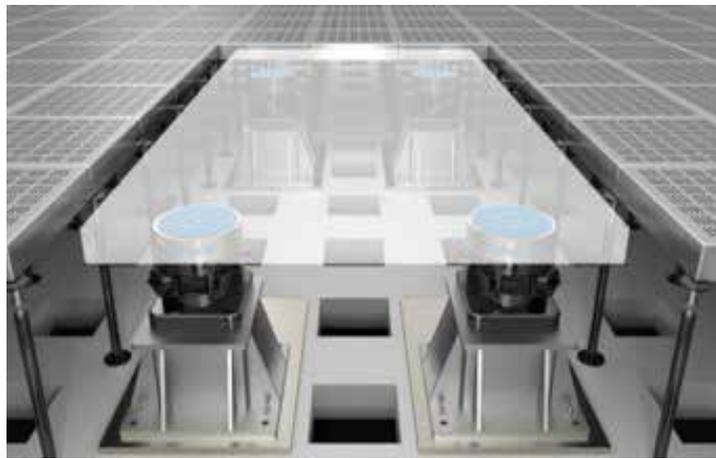


# Application Note

## Quiet Islands - A Greener Alternative

In addition to providing extraordinary levels of floor vibration isolation, STACIS Quiet Islands offer a more sustainable approach to building design for advanced research facilities.

As science and technology march forward, researchers and engineers create patterns and images at ever finer scales, now at the nanometer scale and beyond. Doing so requires, among many other things, extremely quiet building floor vibration levels so as not to disturb the instruments, experiments, and nano-scale manufacturing processes. The traditional approach has been to design buildings to provide ever quieter vibration levels. This requires more steel and more concrete. The quieter the desired building, the more steel and concrete used; small improvements in vibration performance require a great deal more steel and concrete. And, ultimately, this approach becomes impractical as a building cannot provide a vibration environment quieter than the ground beneath the building.



*TMC Quiet Island*

In addition, large concrete “plinths” are typically employed to support sensitive tools in discrete locations in the building. These plinths are supported by air isolators, rubber mounts, or other materials to isolate vibration.

Concrete is a major contributor to greenhouse gases as it accounts for approximately 8% of carbon dioxide emitted into the atmosphere, a remarkable and surprising amount.

Not only is the plinth approach increasingly inadequate to provide the extremely quiet vibration levels necessary, but plinths are “one-time” solutions that are impractical to move and must be ripped-out with jack hammers and re-poured as requirements change. STACIS Quiet Islands are more portable with the platform tops and isolators easily movable to a new location.

Not only do they provide far superior performance, Quiet Islands are a more sustainable and green approach to building floor vibration control. Portable, reusable, recyclable, less concrete, less steel, less energy and resources, and less CO2 emitted into the atmosphere.



*Large, dedicated, poured-in-place concrete plinth*



*Poured concrete plinth does not accommodate changing needs*

