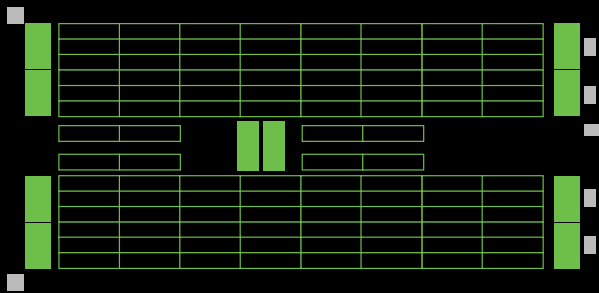


# Enterprise Data Solutions Optimized for In-System Performance

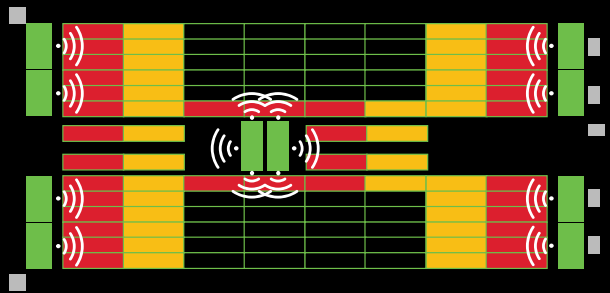
Seagate invests in R&D at an industry-leading pace to understand how our products are deployed in various markets. This uniquely positions us to provide purpose-built products that solve real-world problems.

Seagate systems deliver unprecedented efficiency using components that are engineered, built, and tested to work together flawlessly. Enterprises can be assured that every bit and byte of value from our industry-leading drives is being enabled through the critical, mechanical elements of our JBOD, RAID, and application platforms.

**TRADITIONAL DENSE ENCLOSURE  
WITH DISTRIBUTED FANS**



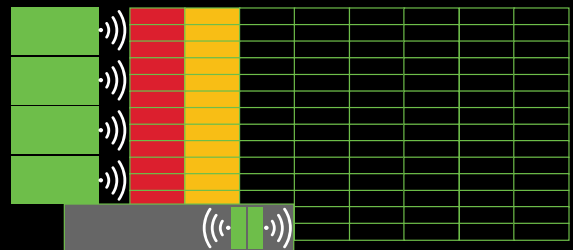
**FAN ACOUSTIC ENERGY  
AND AFFECTED DRIVES**



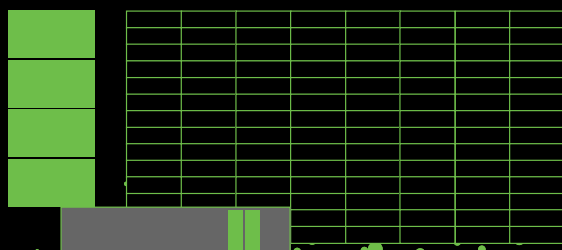
## Exos® E 4U106



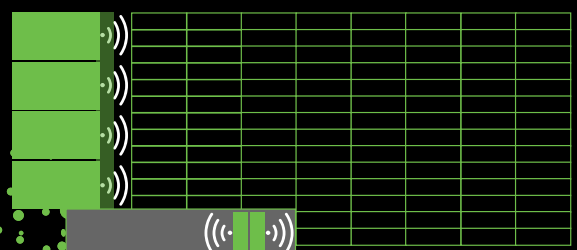
**WITHOUT ACOUSTICSHIELD™**



**SEAGATE 4U106 ENCLOSURE**



**ACOUSTICSHIELD BLOCKS AIR COUPLING**





## How Seagate Systems Maximize Drive Performance

In most high-density storage arrays, a variety of factors can degrade In-System Performance (ISP) at the drive level:

- Fan disturbances
- Normal tracking
- Rattling components
- Transmission of energy from adjacent drives

The design challenge means each drive may not be utilized to its full potential; a particularly costly problem when an enterprise has deployed drives at higher scale. Moreover, hard drives will often sacrifice aerial density to ensure steady performance under worst-case conditions within a chassis.

Seagate disrupts this paradigm by providing optimization features for drive performance that integrate throughout—from the chassis to the controller, and all the way to the hard drives.



## Seagate AcousticShield™

This patented technology minimizes external disturbances that contribute to throughput degradation, and it maximizes system-level density in our highest-capacity data center systems, Exos E 4U106 and Exos AP 4U100. These chassis pack data in the smallest space while ensuring the drives deliver the intended performance. Here's how AcousticShield is different from other solutions in the market:

- Enables rear drive rows with approximately 13 inches of space that would otherwise be unusable
- Reduces performance degradation up to 90%
- Works by removing line of sight from fan to drive and dampening acoustic energy

We didn't stop at AcousticShield when it comes to delivering the value enterprises should expect.

Additional best-in-class, in-system performance results:

- Mechanical isolation dramatically reduces drive interference from vibration
- Power conditioning ensures drives receive clean power to maintain an optimal state
- Thermal management ensures drives don't overheat
- Seagate's microactuator enables our advanced servo control algorithms to maintain in-system drive performance



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