# THE ISOLATOR OCTOBER 2023 – VOL. 5

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# THE ISOLATOR

October is a month that brings a delightful transition between the warmth of summer and the crispness of autumn. As the leaves begin to change their hues and the air becomes cooler, October welcomes us with a unique blend of natural beauty, cultural significance, and a sense of anticipation.

We are thrilled to present the October edition of "The Isolator," Kinetics Middle East LLC's newest monthly newsletter. We have curated an array of projects within the UAE and Bahrain, where Kinetics' showcases its accomplishments in these amazing projects.

We encourage you to take a moment to peruse these pages, celebrate our collective achievements, and discover the opportunities that lie ahead. Thank you for being an integral part of Kinetics, and we look forward to embarking on this exciting journey together.

Moreover, on our YouTube channel, we will be discussing our extensive range of product for Kinetics Inertia Base Frames and how it plays a pivotal role onto your pumping system.







# **EXPANSION OF THE AVENUES - PHASE 2, BAHRAIN**

The project involves the Phase 2 expansion of 'The Avenues' Bahrain Mall located in Manama. It will add a leasable area of approximately 41,000 sqm and a plot area of 103,000 sqm which will include 244 stores and restaurants, two entertainment zones, a hotel apartment, a supermarket, and a basement car park with 1,330 parking spaces.

Kinetics worked with their distributor in Kingdom of Bahrain M/s. Mohammed Fakhroo & Bros. and supplied Vibration Isolators, Flexible connectors, Flexible connectors, Expansion joints and Dielectric unions for the project.

Source https://www.bncnetwork.net/



# **OLIVZ BY DANUBE - DUBAI**

The project involves the construction of a residential complex 'OLIVZ' spread across an area of 18,016 square meters offering studio, 1- and 2-bedroom variants and a number of retail and recreational facilities in Al Warsan area, Dubai.

The complex comprises two basement levels, a ground level and 6 additional levels featuring 741 residential units.

Kinetics Middle East assisted on solutions for Acoustic study and treatment, Floating Floors, Vibration Isolators, and Flexible connectors to M/s. Nantong Construction and M/s. Entsar Electromechanical who were the Main and MEP contractors respectively for the project.

Source https://www.bncnetwork.net/





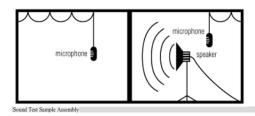
# TECHNICAL DISCUSSION:

# **DETERMINATION OF SOUND TRANSMISSION CLASS**

Testing for airborne sound transmission is performed under rigidly established procedures set up by the American Society for Testing and Materials (ASTM procedure E90-90). Several independent acoustical laboratories across the nation are qualified to perform the tests. Although all are presumably reliable and follow the ASTM procedure, the results tend to vary slightly. For this reason, test results from more than one laboratory should never be compared on an exact basis.

Tests are conducted on a sample assembly, at least 2.4 m×2.4 m in size. The assembly is installed between two rooms constructed in such a way that sound transmitted between the rooms by paths other than through the assembly is insignificant. Background noise in the rooms is monitored to ensure it does not affect test results.

The sound source consists of an electronic device and loudspeaker which produce a continuous random noise covering a minimum frequency range of 125 to 4,000 Hz (Hertz—cycles per second). Note for comparison that human speech is approximately 125 to 8,000 Hz. Panel diffusers and/or rotating vanes are set up so noise is diffused and the sound level is measured at several microphone positions in each room. Readings are taken at sixteen 1/3-octave frequency-band intervals. Average sound levels in the receiving room are subtracted from the corresponding sound levels in the source room. The differences (sound levels of the actual transmission) are recorded as transmission-loss values (adjustments are made for test room absorption and test assembly size).



These transmission-loss values are then plotted on a frequency band-sound pressure level graph and the resulting curve is compared to a standard reference contour. The Sound Transmission Class (STC), as defined by the rating procedure set forth in ASTM E413-87, is determined by adjusting the reference contour vertically until the decibel (dB) total of all frequency bands on the test curve that are below the reference contour does not exceed 32, and no point on the test curve is more than 8 dB below the reference contour. Then, with the reference contour adjusted to meet these standards, its transmission loss at 500 Hz (500 cycles per second) is taken as the STC (dropping dB unit).

An alternative procedure, frequently used for the measurement of sound transmission loss under field conditions, is given in ASTM Standard Test Method E336-90. This may be used to obtain a Field Sound Transmission Class (FSTC).

Source: US Gypsum (usg.com)





# AIR FILTRATION TECHNOLOGY -BION

We are delighted to announce our strategic partnership with BION (Spain), a prominent industry leader known for its expertise in environmental solutions and cutting-edge filtration technology. This collaboration marks a significant milestone for Kinetics, and we are excited to bring you an enhanced and diversified product range to cater to your evolving needs.

BION products are employed successfully across various industries (wastewater treatment, biogas, pulp & paper, post-harvesting, oil & gas, healthcare, etc.) for diverse applications (odor control, desulphurization and removal of siloxanes, corrosion control, ethylene removal, elimination of formaldehyde and NOx, etc.



Here's a concise overview of BION's product range-

- **Ecology Units:** Ecology units excel at comprehensive odor control and efficient removal of oil and grease, revolutionizing kitchen environments. We can offer a range of configurations, depending on different filtration stages, and this includes the option for an auto wash ESP (Electrostatic Precipitator).
- Odour Control Units: Used for removal of odorous gases in various plumbing and industrial applications.
- Chemical Filtration Units: Experience enhanced operational efficiency with BION chemical filtration units.
   These units are designed to excel in removing contaminants, impurities and various types of gases, all while adhering to industry standards.
- Inertial Blade Filters: BION inertial blade filters is renowned for their exceptional particle removal capabilities. These filters are ideal for applications where precision and cleanliness are paramount.
- Air Filters Pre, Fine, HEPA, Bag and Carbon filters.

We are confident that this partnership with BION signifies more than just a collaboration between two companies; it signifies a commitment to innovation and excellence, all for your benefit.

For more information, product demonstrations, or to discuss how these cutting-edge solutions can be tailored to your unique requirements, please do not hesitate to reach us.





# Kinetics YouTube -

# Kinetics Middle East LLC: Kinetics Concrete Inertia Base

Engineered for Success: Kinetics Middle East LLC Expertise in Vibration Control for your Equipment.

Learn more as we tackle one of our core products, Kinetics Inertia Base Frames and how it will benefit with your project.

https://youtu.be/621dBfjT 80



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