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Discover the Kinetics Sales Cycle!



THE ISOLATOR

As we step into 2025, we are buoyed by a renewed sense of purpose, optimism, and determination to build on the successes of the past year. At **Kinetics Group** we recognize that the new year brings with it countless opportunities to push boundaries, exceed expectations and strengthen the partnerships that have fueled our growth thus far.

We are grateful to our clients and partners whose collaboration and trust have been the cornerstone of our achievements and to our team whose dedication has been nothing short of remarkable.

On that note we are thrilled to announce the launch of **Kinetics Acoustics International Limited** in Riyadh, Saudi Arabia. This strategic expansion allows us to serve the Saudi market with greater efficiency and agility, ensuring faster delivery times, personalized solutions, and direct client support.

In this edition of our January 2025 newsletter, we continue to showcase our advanced installations in noise & vibration solutions, seismic restraints, HVAC solutions and custom fabrications reaffirming the trust our clients have placed in us to address complex challenges and deliver impactful solutions.

Thank you for being an integral part of our journey, and we can't wait to achieve even greater milestones together in 2025!

MIXED USE PROJECT, DUBAI, UAE



This Mixed-Use project began with an in-depth acoustic study which identified key sources of excessive sound, including chillers, HVAC systems, and piping networks.

Based on these findings, we developed a tailored solution to address the unique challenges while ensuring optimal system performance and long-term durability.

To mitigate the noise generated by the chiller yard, we installed high-performance acoustic wall linings along its perimeter. These wall linings, designed to absorb and dampen sound waves, effectively reduced noise levels, ensuring compliance with stringent regulatory standards.

For the piping systems, we installed expansion joints to absorb thermal expansion and contraction. This ensured the piping network could handle temperature fluctuations without compromising structural integrity effectively minimized structural stress and improved overall system efficiency, ensuring long-term operational performance and durability.

The implemented vibration control solutions by reducing the transmission of vibrations to the surrounding structure, minimizing wear and tear on both the piping system and adjacent materials.

AVENUE MALL, RIYADH SAUDI ARABIA



Starting with a detailed assessment of the facility's mechanical systems, including chillers and pumps, to identify sources of vibration and noise. Kinetics proposed incorporating **expansion joints**, **flexible connectors**, and **vibration isolators**, each selected to address the unique challenges of the facility.

Expansion joints were installed to absorb thermal expansion and contraction in the piping network. By accommodating thermal movements, the expansion joints effectively protect the system from undue wear and enhance overall operational stability.

Flexible connectors were strategically placed at key transition points between the piping and mechanical equipment in order to reduce the transmission of noise and vibration, accommodate slight misalignments in the piping and minimize stress on joints

To directly address vibration generated by the chillers and pumps, **vibration isolators** were installed beneath each piece of equipment. These isolators were carefully calibrated to handle the specific load and vibration frequencies, preventing vibrations from transferring to the building's structure and reduced structural stress.

TECHNICAL DISCUSSION:

TECHNICAL DISCUSSION: WAVE BAFFLES – ACOUSTICAL CEILING SOLUTIONS

Wave Baffles are advanced acoustical ceiling solutions designed to reduce reverberation and enhance sound quality in large, high-ceiling spaces. These baffles are suspended horizontally in a wave-like form or vertically as banners, offering flexibility to suit various architectural and acoustic needs. Their custom design and versatile finishes make them a cost-effective solution for noise reduction and improved acoustics in spaces where controlling reverberation is critical.



FIGURE 1: IMAGE OF WAVE BAFFLES

Types of Wave Baffles

1. Type SE (Sewn Edges)

- Encased in sailcloth fabric with a woven scrim backer.
- Greater durability and smooth finish.
- Recommended for high-traffic and visually critical areas like gymnasiums or natatoriums.

2. Type HB (Heat Bonded)

- Fully encapsulated in vinyl with heat-sealed edges.
- More economical and suitable for cost-sensitive projects.
- Optional perforated vinyl for enhanced high-frequency sound absorption.

Technical Features

- **Core Composition:** A fiberglass blanket encapsulated in either sewn sailcloth fabric (Type SE) or heat-bonded vinyl (Type HB).
- **Customization:** Available in a variety of finishes, sizes up to 48" wide and 30' long, and suspension hardware engineered to achieve specific vertical drops.
- **Fire Safety:** Compliant with Class A fire rating as per ASTM E84 and California Fire Marshal standards.

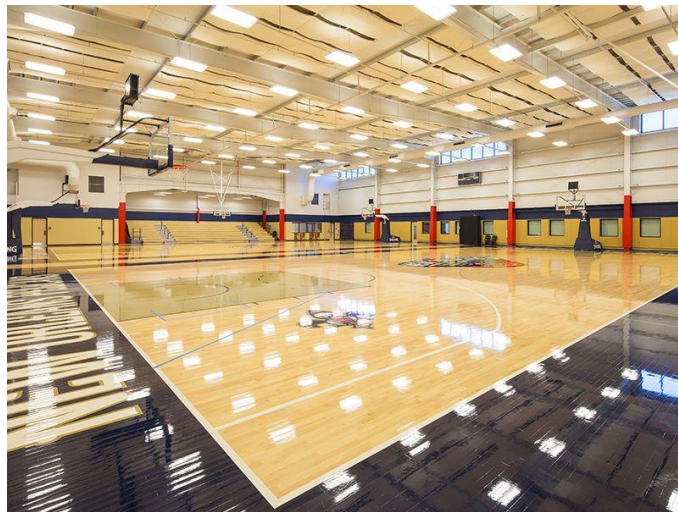
- **Acoustic Performance:** Tested per ASTM C423-90a, providing effective sound absorption across various frequencies, ensuring optimal acoustic performance in real-world applications.
- **Minimum Drop Requirement:** A minimum vertical drop is recommended based on the baffle's length, ensuring aesthetic appeal and optimal acoustic absorption.

Acoustic-Performance

Tested per ASTM C423-90a in a suspended position similar to a typical installation:

Frequency (Hz)	125	250	500	1K	2K	4K
Type SE	0.46	0.80	1.26	1.47	1.27	1.05
Type HB	0.41	0.64	1.00	1.33	0.64	0.29
Type HB (perfed)	0.51	0.56	0.93	1.12	1.08	0.88

Applications



Wave Baffles are ideal for large spaces with high ceilings where reverberation needs to be minimized:

- **Gymnasiums:** Controlling noise during sports events.
- **Natatoriums:** Reducing reverberation in indoor swimming facilities.
- **Arenas:** Enhancing audience experience by improving sound clarity.
- **Multi-Purpose Rooms:** Optimizing acoustics for diverse events.

Wave Baffles offer a high-performance, flexible, and aesthetically pleasing solution to noise control challenges in large spaces. Their customizable designs and proven acoustic performance make them an ideal choice for architects and engineers seeking reliable sound absorption and aesthetic integration. Whether it's a sports facility, an event space, or a public area, Wave Baffles deliver superior results while meeting rigorous fire safety and durability standards.

PRODUCT HIGHLIGHT

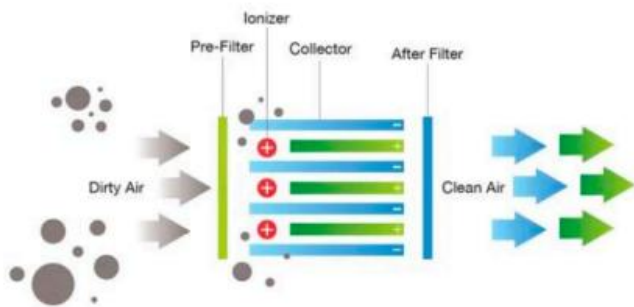
KINAIR ECOLOGY UNIT

Our Kinair ecology units consist of ESPs (Electrostatic Precipitators) for the removal of grease and smoke and further filtration processes through multi-stages of pre-filters, fine filters, optional EPA filters, and gas phase filters. ESP, composed of ionizing and collection sections, operates on the principle of electrostatic precipitation, where grease and smoke particles are charged in the ionizing section and then enter the collector section, which is made up of parallel spaced plates.

Each alternating plate is charged with the same polarity as the charged particles, which will in effect repel the particles onto the other set of plates that is grounded. The particles will remain collected on the grounded plates until they are washed away.

Coarse and fine particles are treated through the pre- and fine-filters, whereas odor is handled in the gas-phase filters.

Clean air is then extracted through an exhaust fan that is fire-rated by UL or other equivalent standards.



APPLICATIONS

- Restaurants
- Bakeries
- Food Courts
- Steakhouse
- Asian Cooking
- Cloud / Dark Kitchens
- Cafeterias
- Supermarkets
- Colleges and Universities
- Mixed Use Retail/Residential



SPECIFICATIONS

Construction	: Double Skin
Sheet Material	: GI Sheets
Insulation Material	: PUF / Rockwool
Access Door	: Hinged / Removable
Airflow Range	: 500 – 30,000 (2x 15,000) CFM
Fan option	: DIDW / SISW (Std or 400C/2hr or UL)
Motor Option	: IE2 / IE3

Structure	: Extruded Aluminum Profiles
Sheet Thickness	: min. 0.8mm (inner & outer)
Insulation Thickness	: 2 inches
Base Frame	: 30/50/100mm GI, 2mm
Multi-stage Filtration	: ESP+Pre (G4)+Fine(F7)+Carbon – Combo varies
Optional Accessories	: DPS / DPT / Pressure gauge / Limit Switch / Marine light / Sight Window / Ozone Generator
Motor Protection	: Class F (Std.) / Class H (Optional)



Kinetics YouTube

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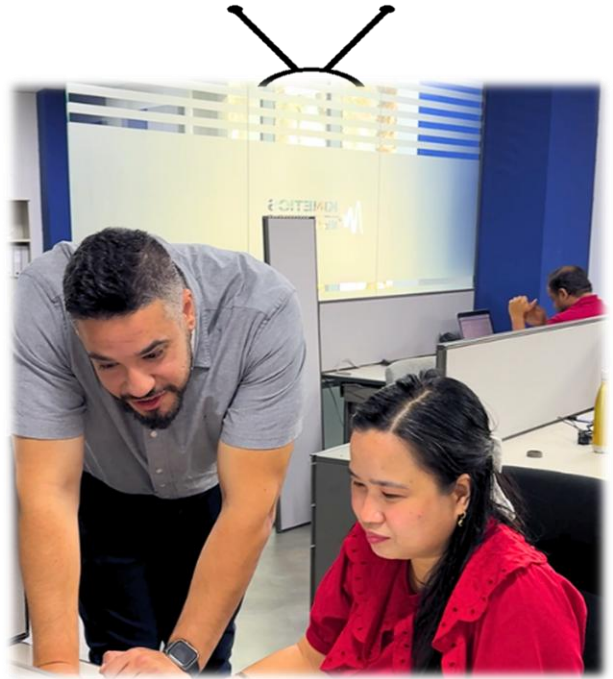
We're excited to share our new video showcasing the complete Kinetics process—from receiving your inquiry to quotation, design, fabrication, delivery, and after-sales support. It's a behind-the-scenes look at how we ensure excellence at every stage.

👉 Watch the video here: <https://youtu.be/ExHk0XSofP0>

📺 Don't forget to subscribe to our YouTube channel for more updates and insights!

#knowmore

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"After my experience with Kinetics, I highly recommend them for their reliability and exceptional service on any project."

Engineer Amal Krishna
(Unique ElectroMechanical LLC)

"Kinetics has been exceptional and outstanding across all aspects of our project."

Rajesh Kannan
(Condor Building Contracting LLC)

"Kinetics excelled in addressing and resolving consultant comments while ensuring timely re-submissions."

Shakila Nishani
(Zabcon Properties).

