

THE ISOLATOR

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INSIDE THIS ISSUE

PG. 2

Project Highlight:
Creek Crescent, Dubai & Exit 10
Seven Al Hamra, Saudi Arabia

PG. 3 & 4

Technical Discussion:
Basics of Pressure Independent
Control Valve.

PG. 5

Product Highlight: Masonry Wall
Isolation Strip – NAFP-10

PG. 6

YouTube Video:
Installation of FLSS Seismic



THE ISOLATOR

Warm greetings, valued readers!

Welcome to the August 2024 edition of the Kinetics Group newsletter.

This month, we continue to share Kinetics Group's remarkable projects and milestones reflecting the trust our clients have instilled in us to deliver application solutions in vibration isolation, acoustic treatments and seismic restraints.

Our newsletter showcases our dedication to our clients' projects. Each project demonstrates our unwavering commitment to providing high-quality solutions that enhance the lives of those who inhabit these spaces and meet the expectations of our partners and clients.

In addition, check out our YouTube video, as we review Kinetics' FLSS Seismic Control Restrained Spring Isolator, which provides exceptional vibration isolation, effectively reducing the transmission of vibrations.



CREEK CRESCENT, DUBAI, UAE



The project involves the construction of a residential tower comprising 2 basement levels, a ground floor and 21 additional floors with a 4-storey world-class amenities podium, a range of exquisite 1, 2 & 3-bedroom apartments, elegant townhouses along the promenade and a full landscaped utility area on the boulevard side.

Kinetics Middle East LLC partnered with M/s. Binlahej Electromechanical LLC to supply various outstanding products range and Engineering Solutions, which includes conducting the Stress analysis for both Chilled water Riser and Horizontal Chilled Water Piping.

The supplied products include Vibration Isolators, Riser Thermal Expansion Joints and Stainless-Steel Flexible Hose connectors.

Bin Lahej Electromechanical L.L.C is one of the pioneers in MEP contracting specializing in complete Electromechanical works from concept design to Facility Management. Their expertise extends to district cooling projects, high rise buildings, commercial and residential buildings, factory buildings and luxury villas.

EXIT 10 SEVEN AL HAMRA



The project involves the construction of an entertainment complex set on a land area of more than 90,000 square meters with a built-up area of 167,000 square meters and occupies a strategic location at the intersection of the Eastern Ring Road and King Abdullah Road. SEVEN Al Hamra is expected to attract six million visitors per year by providing world-class entertainment attractions.

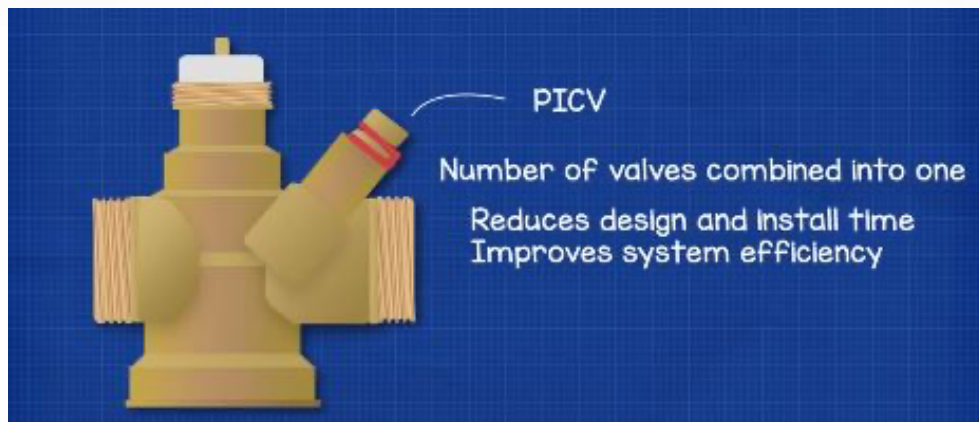
Arwada Trading Co. played a great role in supporting the client by supplying the Vibration Isolators, Flexible connectors and Stainless-Steel Expansion joints for this prestigious project.

Arwada Trading Co. is Kinetics' Group partner and main supplier of Kinetics products in the Kingdom of Saudi Arabia.



TECHNICAL DISCUSSION: BASICS OF PRESSURE INDEPENDENT CONTROL VALVE.

Pressure independent control valves (PICV) are commonly utilized in hydronic systems for heating and cooling in buildings. These valves combine multiple valves into one, saving time during installation and improving system efficiency by regulating liquid flow and adjusting for pressure variations.



This valve comes in a variety of forms. As you can see, they have different designs when the valve size rises, but their basic idea of operation remains the same.

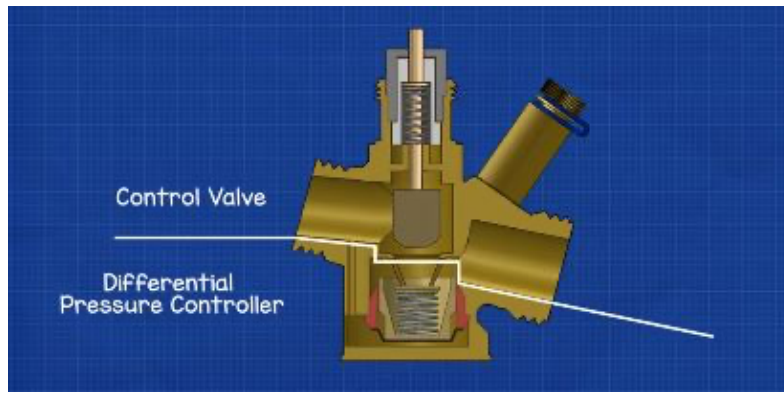
- BUILT

Valve body connects inlet and outlet for fluid control. Arrow indicates flow direction.

Colored tabs on two ports allow manual pressure measurements for valve confirmation.

The top of the valve has a rotatable knob that can be used to establish and regulate the flow rate via the valve. The knob has a number scale to assist with configuration. In addition, the top has a thread that enables us to mount an actuator for remote temperature control through a building management system.

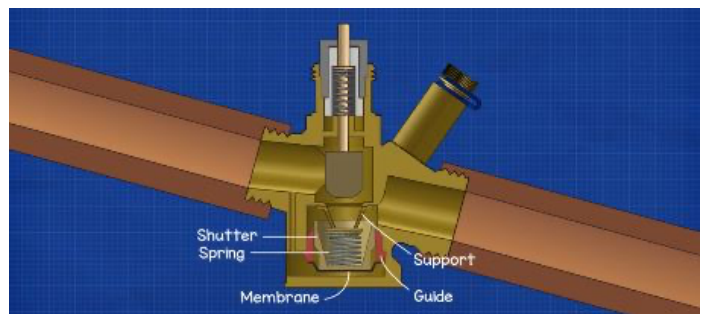
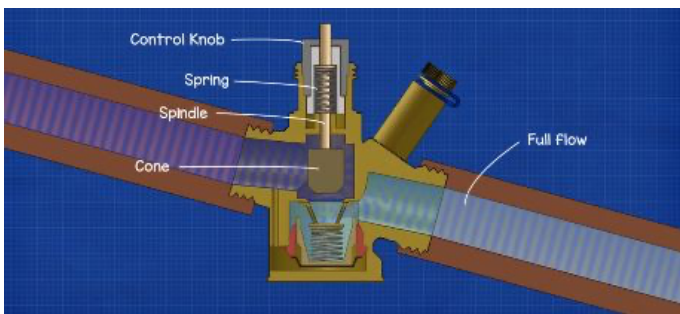
The valve is divided into two parts: the control valve in the upper section regulates water flow, and the differential pressure controller in the lower section adjusts to changes in fluid pressure. An actuator or manual adjustment is needed to operate the control valve remotely.



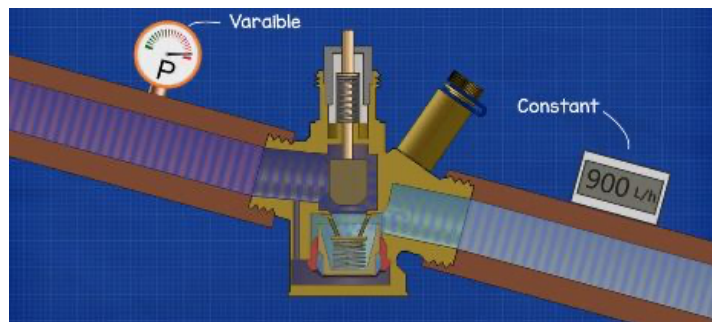
- WORKING PRINCIPLE

The control valve is a valve with a cone that moves up and down to adjust fluid flow. It is attached to a spindle and control knob, which can be manually or remotely manipulated. The valve's volume flow rate increases as it closes, while it decreases as it opens.

This valve model uses a small shutter to adjust pressure, positioned within a guide. It's held in place by an internal spring and a support frame. The shutter's bottom is a flexible membrane, acting as a barrier between the inlet and outlet. Water flows through the membrane, pushing the shutter upwards to maintain pressure.



The spring maintains the valve's equilibrium by adjusting the force and pressure difference between the two sides, ensuring constant flow rate regardless of system pressure changes.



The control valve regulates water flow through the unit and pipes, either manually or via an actuator, while the pressure controller adjusts its position based on system pressure fluctuations, ensuring pressure independence.

Source: The Basics of PICV's Explained By Paul Evans, Technical Manual- Pettinaroli

Product Spotlight: Masonry Wall Isolation Strip – NAFP-10

Kinetics Noise Control's NAFP-10 is a custom-molded and coated fiber glass board with high-density fiberboard which resiliently decouples a CMU (concrete masonry unit) wall from non-isolated structure.



Flanking of sound through a floor/ceiling assembly can reduce STC (airborne noise) or IIC (impact noise) ratings 10 points or more versus non-flanked sound control construction. Frequently used in conjunction with other Kinetics sound isolation products, NAFP-10 creates a resilient break to stop sound or vibration from flanking to the area below the wall. To maintain proper separation, neoprene tubing (by others) should be used around any reinforcement from non-isolated structure. Apply NAFP-10 continuously along the bottom of a CMU wall wherever acoustical isolation is required to maintain a fully effective sound rated assembly.

- Use Kinetics' KIP Pad Technology
- Easily cut hardboard and coated fiberglass composite
- Continuous resilient support of the partition
- Designed for loads up to 15 psi (10-N/cm²) Contact factory for high capacities.
- Engineered for a wide range of loads

For more information or to request a quote, please contact our sales team or visit the Kinetics Middle East [website](#).



Kinetics YouTube

Installation: FLSS Seismic Control Restrained Spring Isolator

We are excited to showcase our video on the installation of the Kinetics Group Vibration Isolator Model [FLSS] Seismic Control Restrained Spring Isolator. This state-of-the-art isolator is designed to provide superior vibration and seismic control, ensuring the safety and stability of your structures. In this video, we take you through a step-by-step guide on the installation process. Enjoy Watching!

<https://www.youtube.com/watch?v=9fBY993Nf84>



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"I experienced exceptional service delivery and coordination from the Kinetics team"

**Ravi kumar
China Railway 18th Bureau Group
L.L.C.**

"Kinetics provided a seamless service in terms of logistical arrangement, commissioning and after sales support"

**Jayanth Stephen
James L Williams LLC**

"I impressed by the Kinetics" responsiveness to inquiries and submittals, as well as their coordination.

**Aparna Githin
Bombay Contracting LLC**

"Kinetics delivered outstanding end-to-end services"

**Mahmoud Assaf
Al Ashram Contracting LLC**

