



WELCOME TO
W.AND ASSOCIATES

COMPLETED PROJECT

UNDERCONSTRUCTION
PROJECT

Etc.

ACTIVITIES

NEW PROJECT



COMPLETED PROJECT

THE LINE RATCHATHEWI, CONDOMINIUM



THE LINE RATCHATHEWI

Location: @New Petchburi Road, Bangkok
Owner: Sansiri Public Company Limited.
Project Summary:
A 38-Storey High-rise condominium with 231 units.
Construction area is estimated at 28,000 sq.m.
W&A Responsibility:
- Mechanical, Electrical and Plumbing System Design.

Project Information

THE CENTER OF EVERYTHING
The Line Ratchathewi, this is the center of outstanding in every aspect. The potential location that attracts the future opportunity is your happiness. Special design space with convenient functions.

COMPLETED PROJECT

IBIS STYLES BANGKOK RATCHADAPHISEK



IBIS STYLES BANGKOK RATCHADAPHISEK

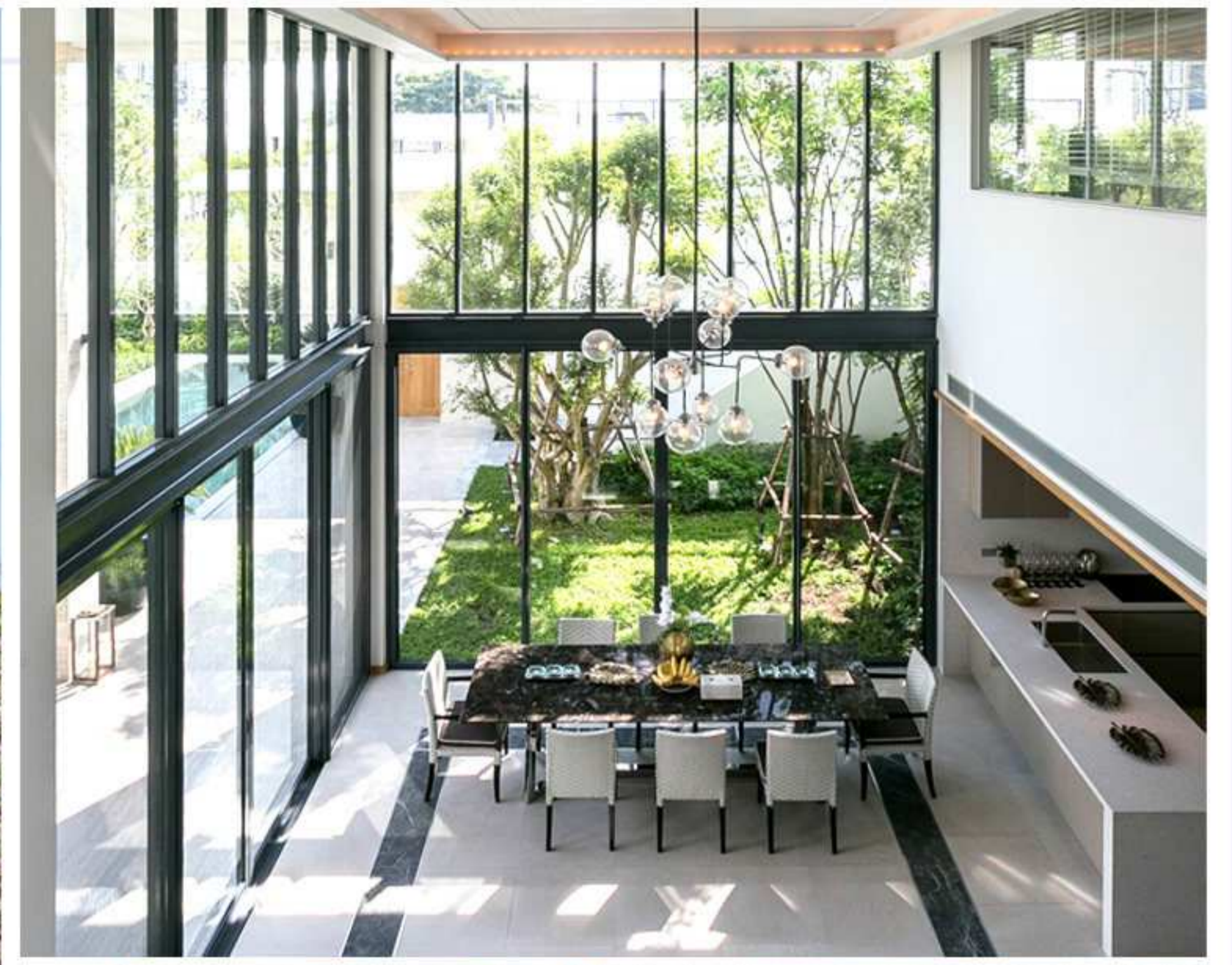
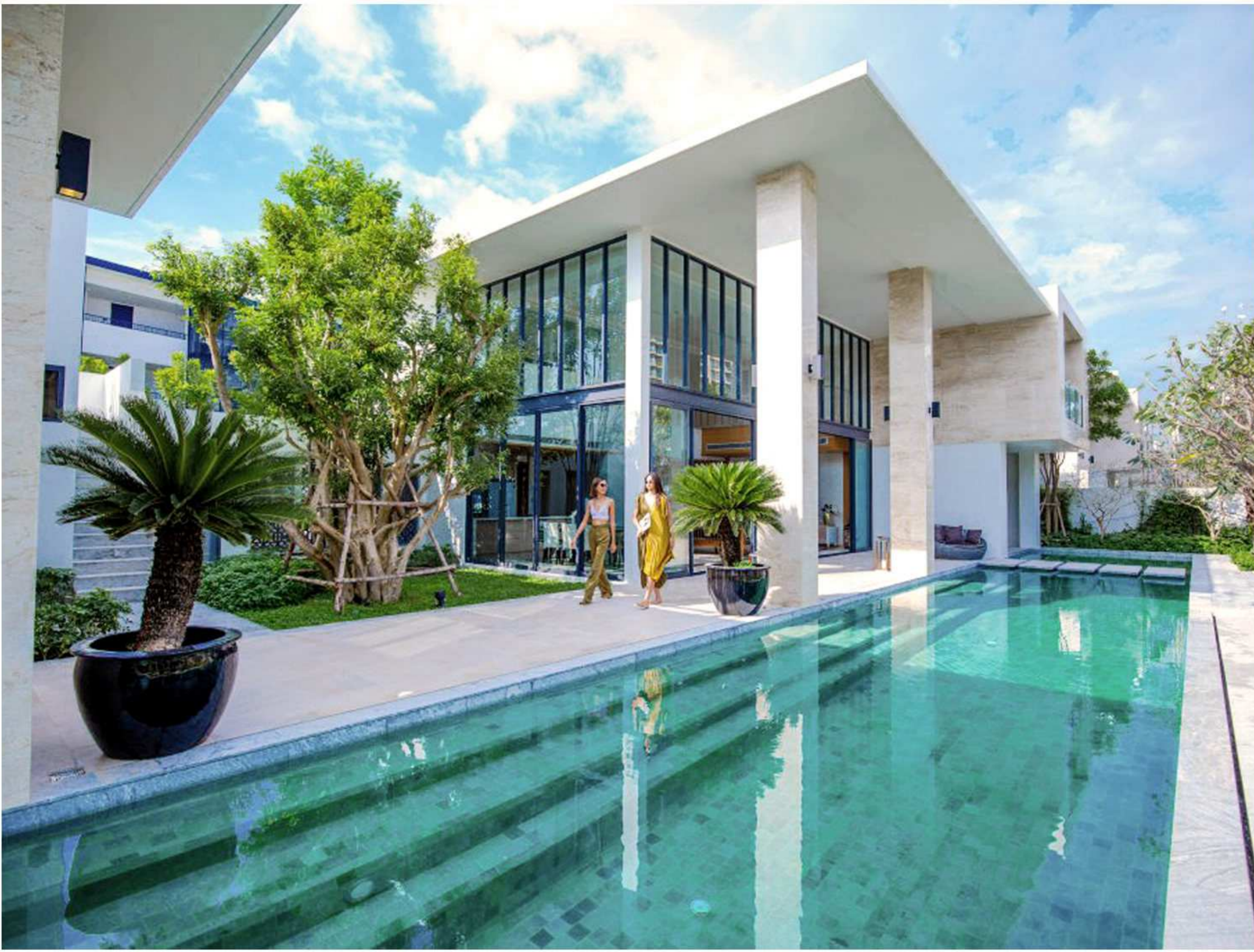
Location: @Ratchada, Bangkok
Owner: P.T. Complex Company Limited.
Project Summary: The Rebranded work for Caesars Entertainment to be a IBIS Style 12-storey hotel. Construction area is estimated at 20,000 sq.m.
W&A Responsibility:
- Mechanical, Electrical and Plumbing System Design
- Civil and Structural Design

Project Information

The Rebranded work for Caesars Entertainment to be a IBIS Style 12-storey hotel.

COMPLETED PROJECT

BABA BEACH CLUB HUA HIN, LUXURY POOL VILLA



BABA BEACH CLUB HUA HIN, LUXURY POOL VILLA

Location: @Cha-am, Petchaburi

Owner: Charn Issara Development Public Company Limited.

Project Summary: A Luxury bedrooms building with total 7 units. Construction area is 22,819 sq.m.

W&A Responsibility:

- Mechanical, Electrical and Plumbing System Design.
- Project/ Construction Management.

Project Information

THE ULTIMATE LUXURY POOL VILLA MANAGED BY SRI PANWA.

As one of the latest branded exclusive beach club hotels & private residences in Hua Hin, Baba Beach Club Hua Hin is managed and developed by the team behind the internationally acclaimed luxury pool villa hotel & residential estate, Sri panwa. Envisioned to fuse together brio and bluster with glamour and grace whilst presenting itself as a luxury hotel for music lovers.

COMPLETED PROJECT

PLUM CONDO, PLINKLAO



PLUM CONDO, PLINKLAO

Location: @Somdet Phra Pinklao Road, Bangkok

Owner: Pruksa Real Estate Public Company Limited.

Project Summary:

A 22-Storey High-rise condominium with 1 basement floor, 964 residential units and 4 commercial units. Construction area is 23,000 sq.m.

W&A Responsibility:

- Quantity Surveying Service

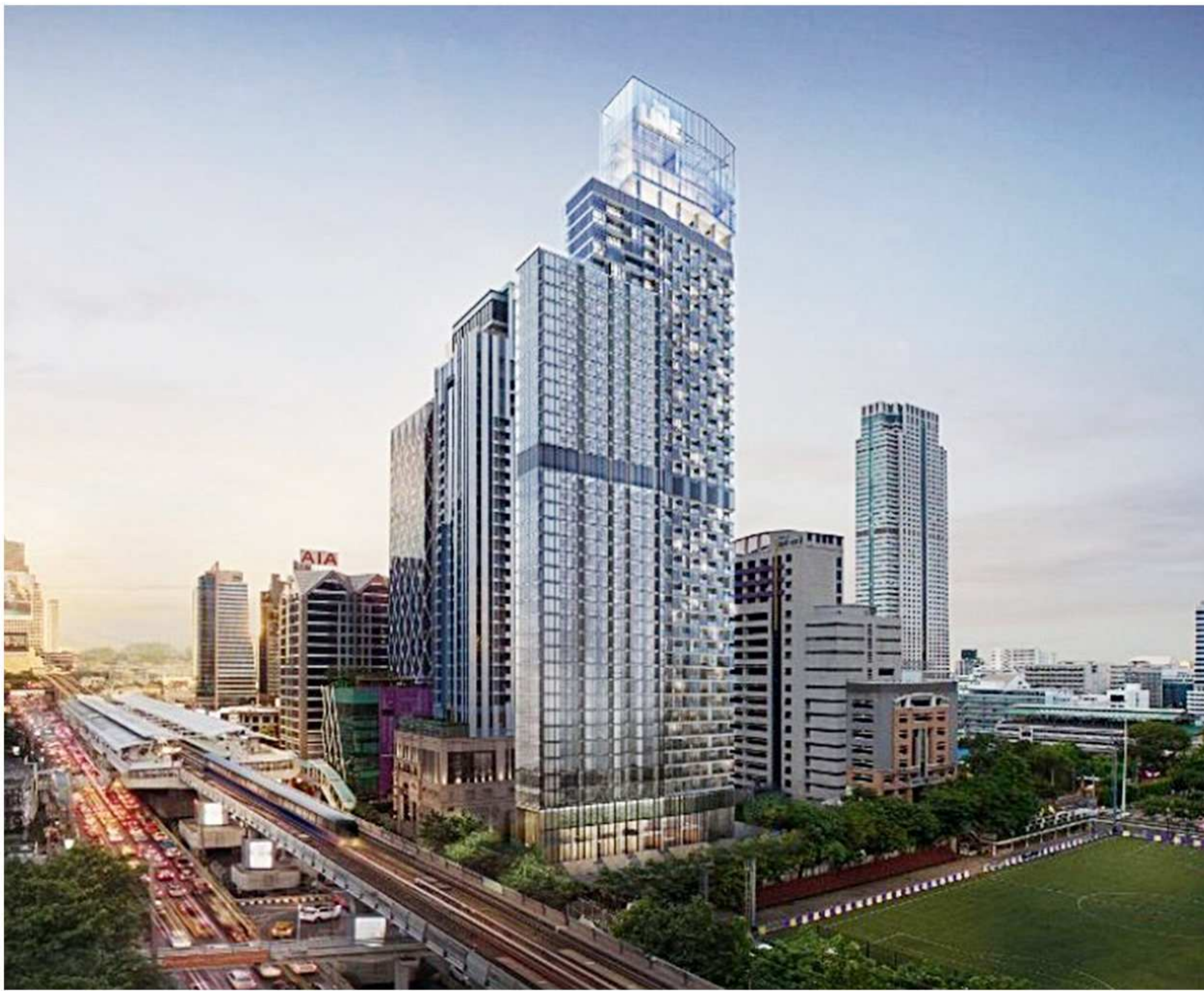
Project Information

The residence will be situated on the heritage Somdet Phra Pinklao Road, the location where MRT Blue Line is scheduled to come, with Bang Yi Khan Station situated 600 m. away from the project.

COMPLETED PROJECT

UNDERCONSTRUCTION PROJECT

THE LINE SATHORN, CONDOMINIUM



THE LINE SATHORN, CONDOMINIUM

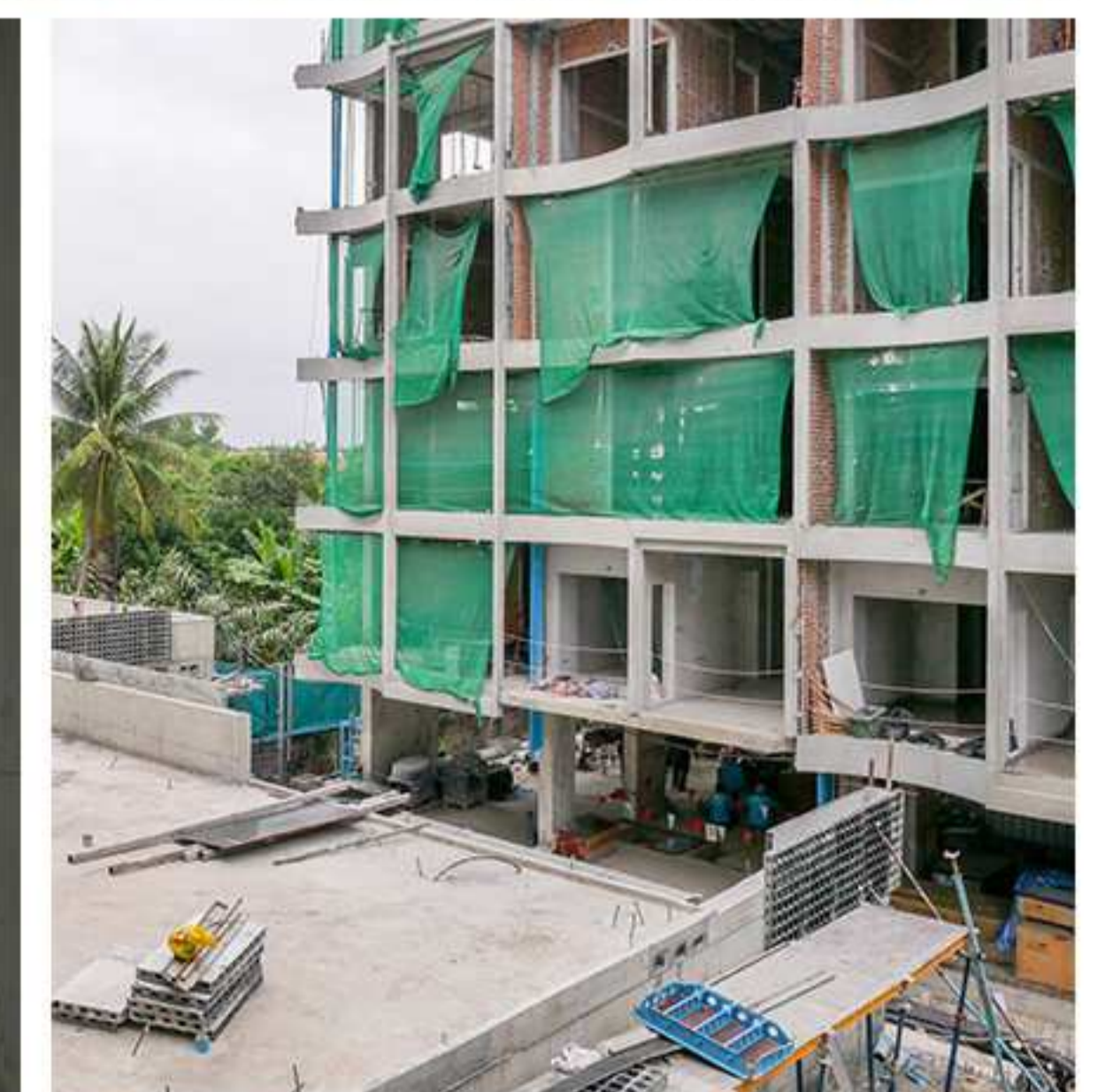
Location: @North Sathorn Road, Bangkok
Owner: Sansiri Public Company Limited.
Project Summary: A 46-Storey High-rise condominium with 322 units.
Construction area is estimated at 32,000 sq.m.

W&A Responsibility:
- Mechanical, Electrical and Plumbing System Design
- Civil and Structural Design

Project Information

THE LINE SATHORN
Concept "SIMPLICITY IN EVERY THING" by Sansiri
Location in the heart of city, next to BTS Surasak station only 0 meters,
with many amenities Innovation for smart innovation and smart design

KAWA HUAS, SUKHUMVIT 77



KAWA HAUS, SUKHUMVIT 77

Location: @Sukhumvit 77 (On-Nut) Road, Bangkok
Owner: Sansiri Public Company Limited.
Project Summary: A 7-Storey residential building and 2-Storey clubhouse building with basement.
Construction area is estimated at 46,000 sq.m.

W&A Responsibility:
- Mechanical, Electrical and Plumbing System Design
- Civil and Structural Design

Project Information

KAWA HAUS : LIVE A GOOD STORY
In the fast pace of Urban Living, always have the ones seeking for Nature. Amidst the shade of the trees and the freshness of canal view, making your everyday life feels akin to staying in a vacation, whilst all convenience are just around the corner. Inspired by the body of water nearby, the Kawa Bridge twists and turns. Like natural sp rings, hot and cold jacuzzi pools help you feel relaxed and freshened up. and unwind underneath the Bamboo Cabanas where a wireless mobile phone charging is also available.

NEW PROJECT

ONE BANGKOK



ONE BANGKOK

Location: @Wireless road and Rama IV, Bangkok

Owner: Kasemsubvadhana Company Limited.

Project Summary: 104 rai (16.7 hectares) land area

Gross floor area of 1.83 million sq.m. will consist of:

- 5 Grade a office towers
- 5 Luxury and lifestyle hotels
- 3 Ultra luxury residential towers
- 4 Distinctive retail precincts
- Art & culture spaces

Construction cost is estimated at 120,000 million baht.

W&A Responsibility:

- Mechanical, Electrical and Plumbing System Design

Project Information

One Bangkok is a new global landmark destination - a fully-integrated district in the heart of the city. Once completed, it will be synonymous with Thailand and will enhance the country's stature on the world stage.

NEW PROJECT

OKA HAUS



OKA HAUS

Location: @Bangkok, Thailand

Owner: Sansiri Public Company Limited.

Project Summary:

A 47-Storey High rise condominium with 1,178 units.

Construction area is estimated at 75,185 sq.m

W&A Responsibility:

- Mechanical, Electrical and Plumbing System Design

Project Information

Drawing inspiration from lofty mountains, glorious breezes and rays of sunshine, the 47 floor condominium residence rises up affording homeowners the opportunity to embrace a life filled with tranquility and simplicity effortlessly concurrent with nature. Relax and recharge to the fullest with technology making everything available at the click of a button.

YU RUAY CONDO



YU RUAY CONDO

Location: @Nawamin Road, Bangkok

Owner: Bright Development Company Limited.

Project Summary:

Renovation of 10 residential buildings, 8-Storey with 2,461 units.

Construction area phase 1: 40,000 sq.m.

Construction area phase 2: 40,000 sq.m.

W&A Responsibility:

- Construction Management

Project Information

"Yu Ruay Condo" is a special condominium project in accordance with the requirements of the Government Housing Bank .

ACTIVITIES

W. AND ASSOCIATES Group Annual Trips & Seminar 2019

Annual activity of W. AND ASSOCIATES Group was held from
31st August – 1st September 2019.

The management is determined to be a policy of welfare and morale for employees.
This year, WA Club team has presented "The Resort Water Park" at Suan Phueng, Ratchaburi Province.

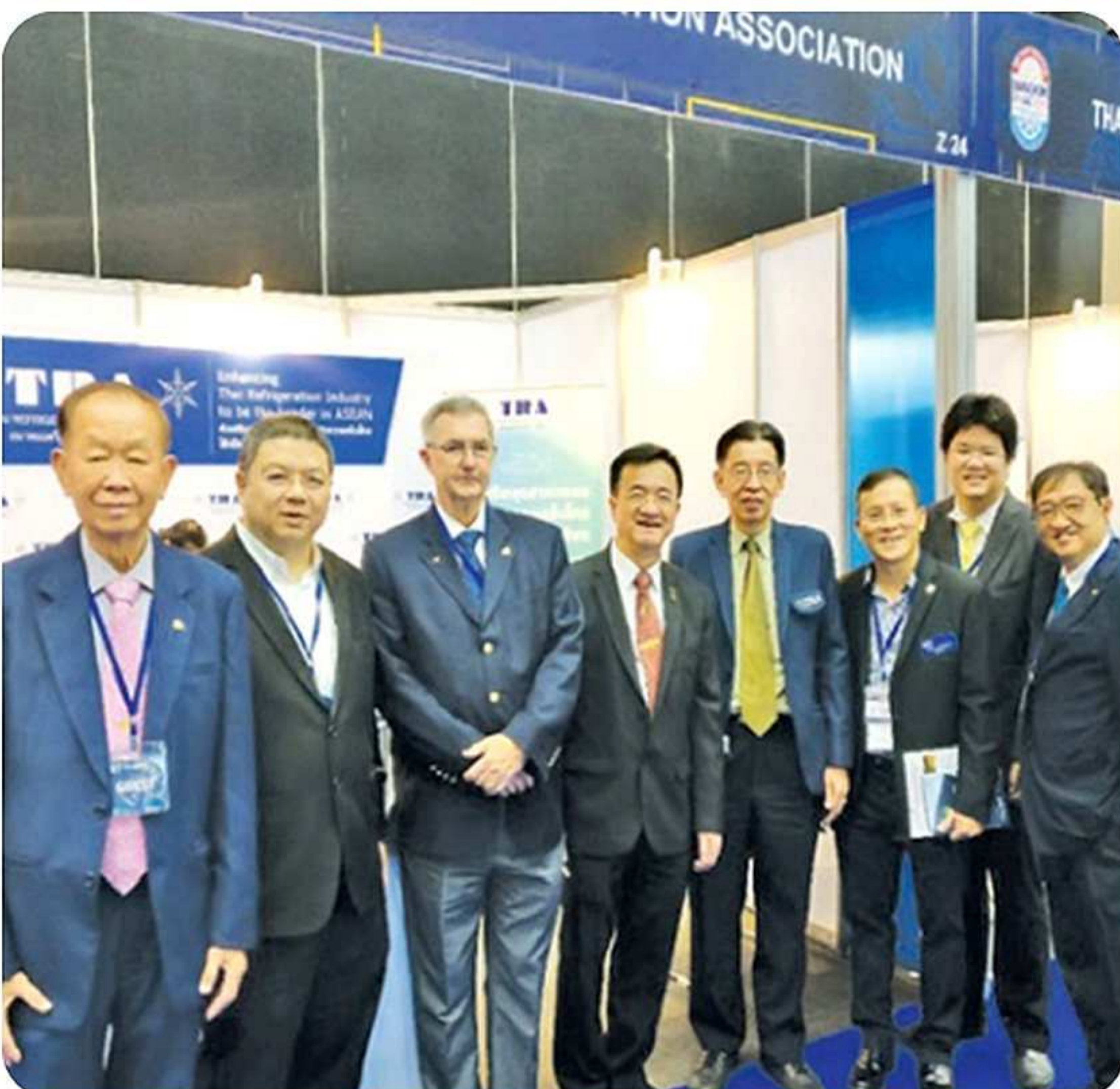
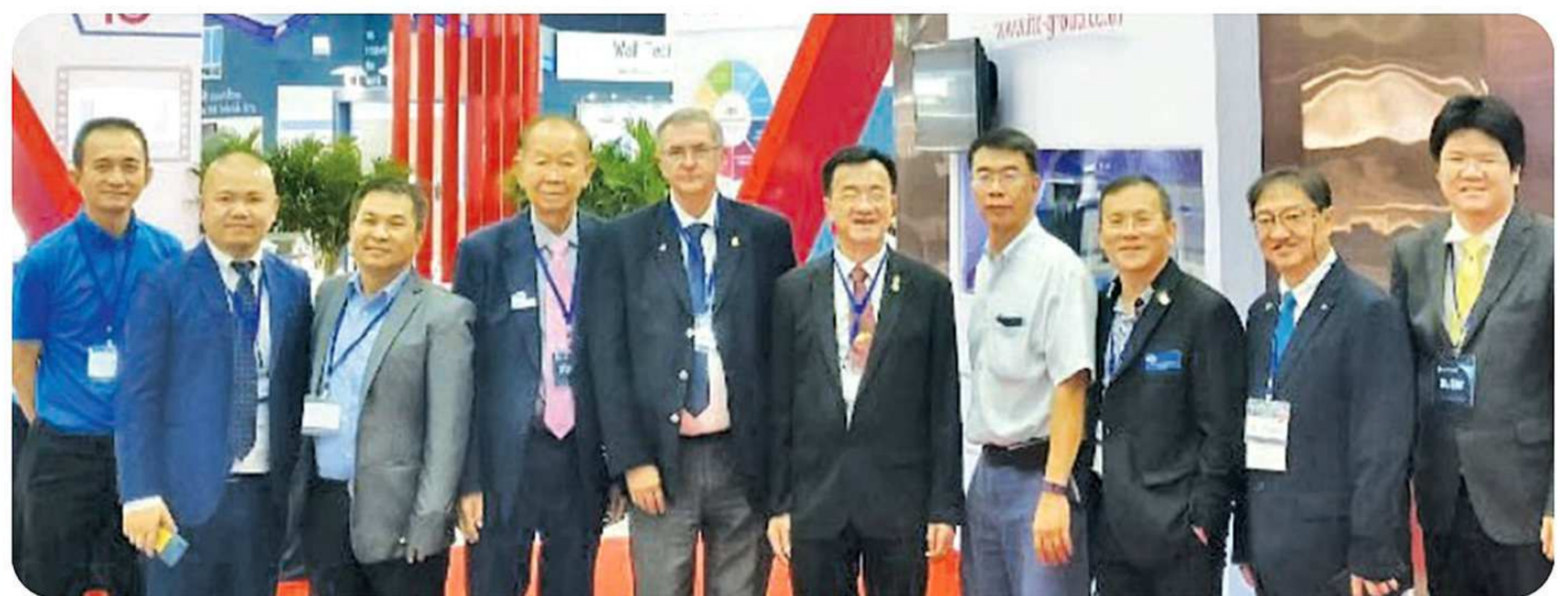


ACTIVITIES

ASHRAE President in Town for ASHRAE Thailand Chapter's Dinner Talk and Bangkok RHVAC

21-25 September 2562

Mr. Wichai Laksanakorn is a Co-Founder & Chairman of W. AND ASSOCIATES Group
has joined ASHRAE President in Town for
ASHRAE Thailand Chapter's Dinner Talk and Bangkok RHVAC at Swissotel Le Concorde.



ACTIVITIES

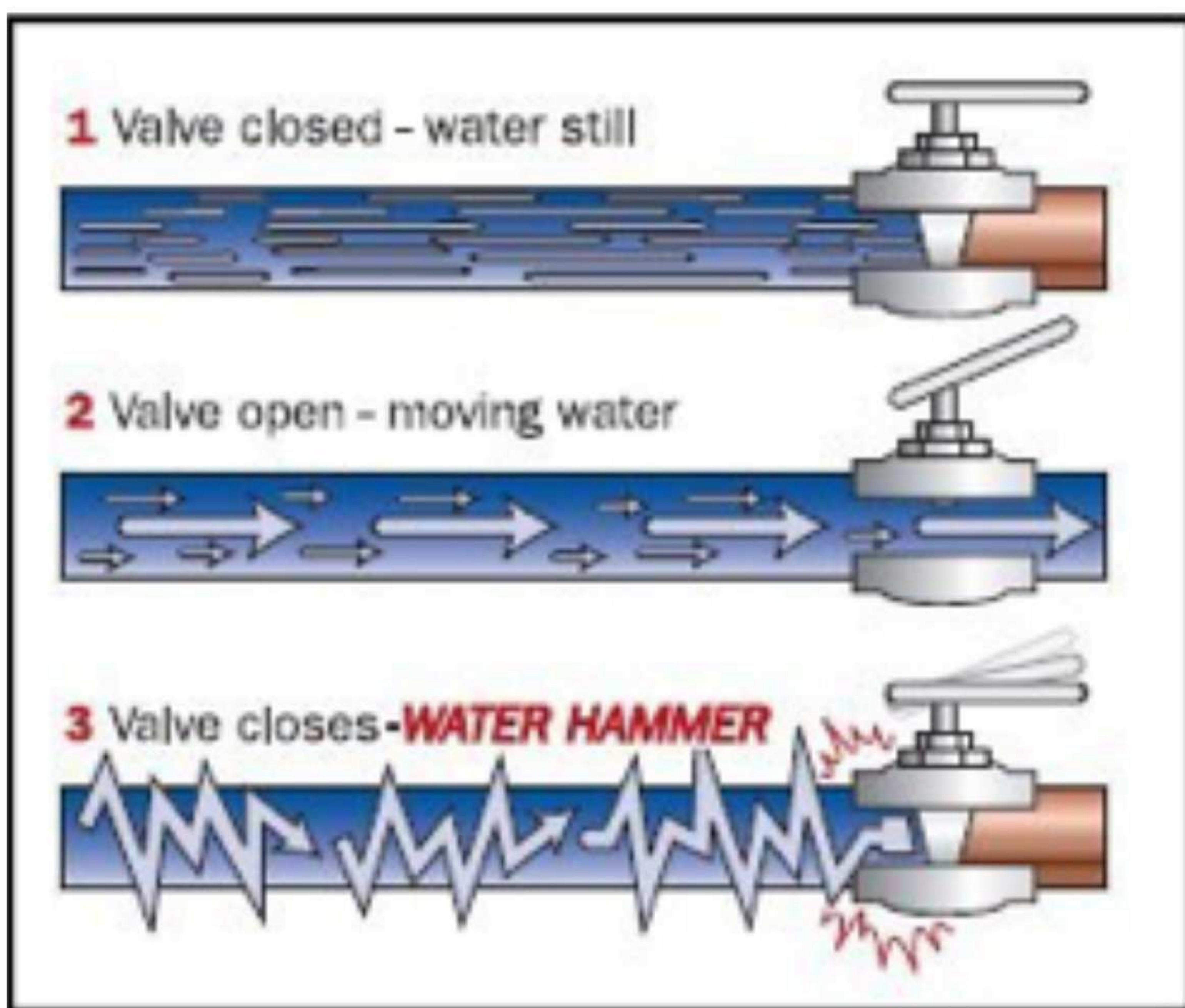
2019 THE Company's Merit Ceremony

On 2nd December 2019, The Board of Management and staff of W. AND ASSOCIATES Group have event Buddhist religious ceremony for the prosperity of the company.



Water Hammer

It is not uncommon for metal pipes in a plumbing system to bang loudly when a faucet is shut off suddenly, or when a water-using appliance such as a washing machine or dishwasher shuts off the water intake abruptly. The condition is commonly known as water hammer. The technical term is hydraulic shock, and it occurs when water stops or changes directions suddenly. The banging you hear is caused by the shock wave that causes plumbing pipes to move and strike against one another or against wooden framing members.



In addition to being annoying, water hammer can be so forceful that it can break pipes or loosen plumbing joints.

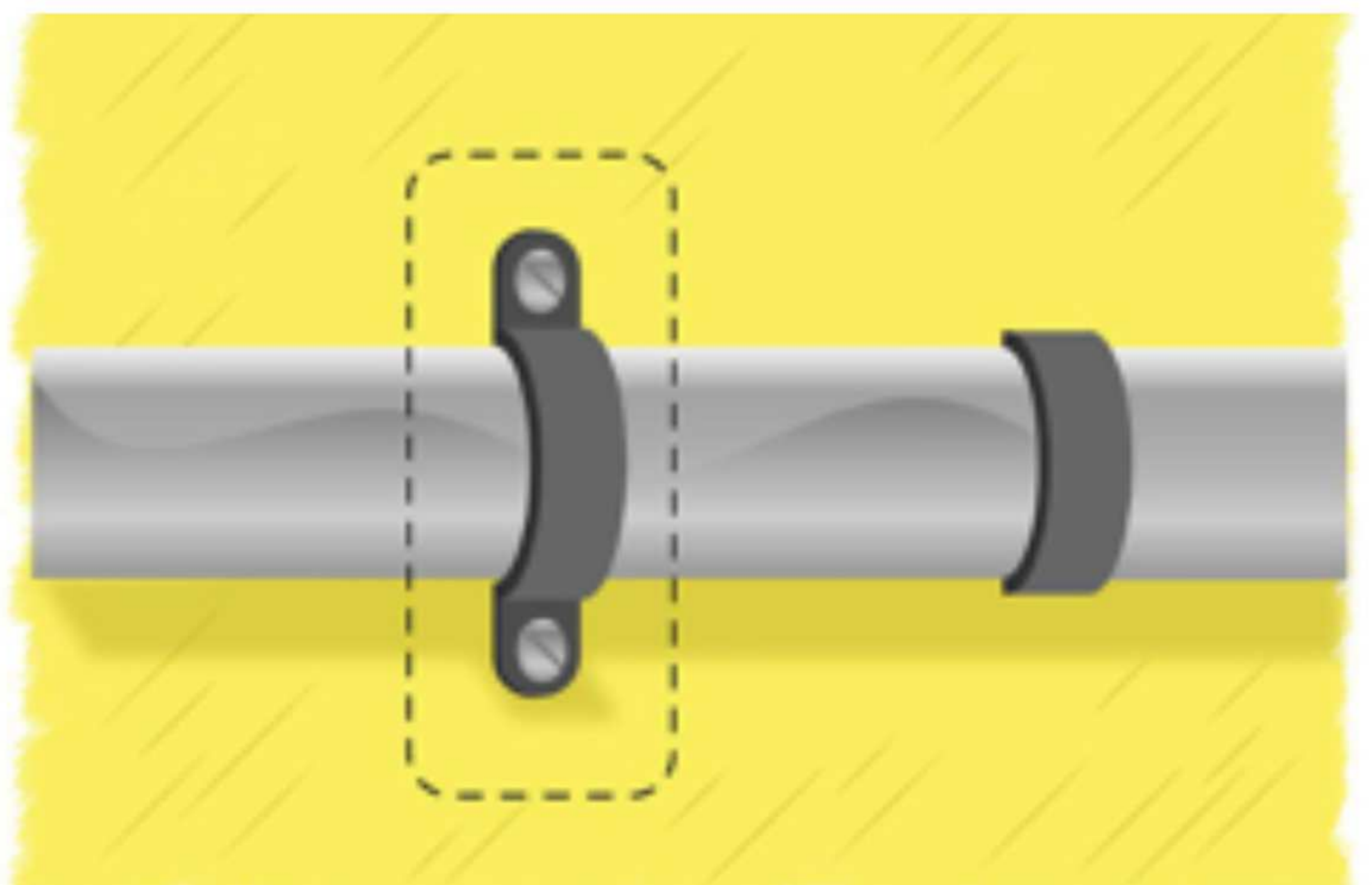
Note: Although you don't hear it as loudly, water hammer can also be an issue with plastic water supply pipes, such as PCV and PPR. And the potential danger for pipe damage still exists. If you have open areas where plastic plumbing pipes are exposed, watch the pipes for signs of movement and flexing

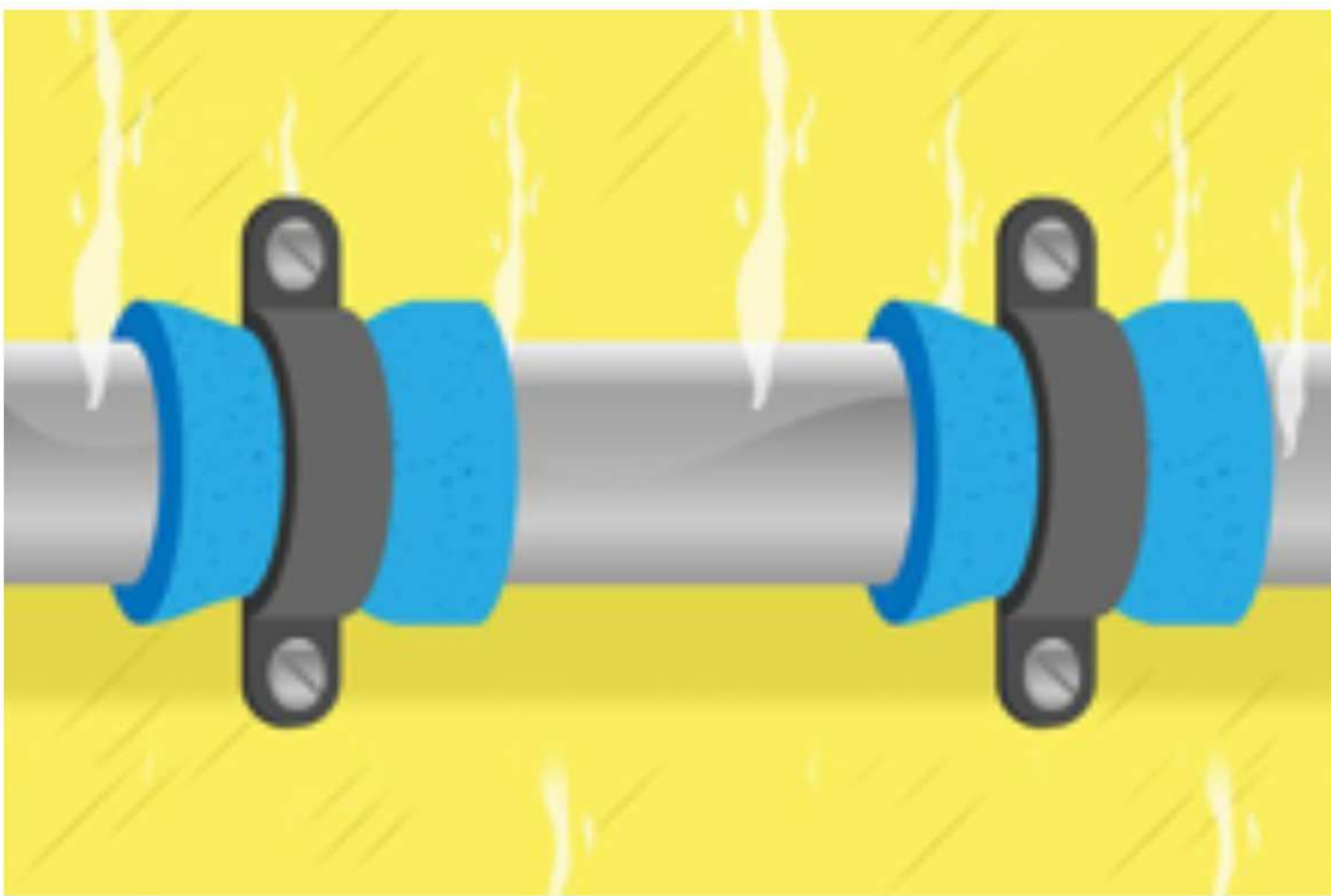
when someone abruptly turns off faucets. Water hammer in plastic pipes also calls for remedy.

There are four common methods of eliminating water hammer.

1. Securing Loose Pipes

Even a mild shock wave can create loud banging if the plumbing pipes are not secured well. A mild case of water hammer generally doesn't cause pipe damage, and you can prevent it by tightening any loose pipe straps or hangers that secure the pipes to studs or joists. Segments of foam pipe insulation wrapped around the pipes can also serve as shock absorbers to prevent banging. This is easiest to do in exposed, unfinished areas, such as a basement space where pipes are visible and accessible. If you see areas where the pipe straps or hangers are loose, resecure them. Add additional pipe straps or hangers where the pipes cross studs or joists. If plumbing pipes run through bored holes in framing members, you can pack insulation or pipe around the pipes or install pipe sleeves to cushion them





With very pronounced water hammer, this method will probably not be enough to prevent potential damage to the pipes. With severe water hammer, you will need to try one of the other solutions.

Note: Make sure not to mix dissimilar metals when securing metal plumbing pipes with metal straps and pipe hangers. Do not use steel or galvanized steel straps on copper pipe, for example, because a chemical reaction called electrolysis can cause corrosion of the metal. Secure copper plumbing pipe with copper or plastic pipe straps and hangers.

2. Install an Air Chamber

Another very simple method of curing air hammer is to install a short segment of vertical pipe near the valves that are causing the water hammer. Known as an air chamber, this method creates a segment of empty, air-filled pipe that provides a cushion for water to rebound into when it wants to change directions suddenly. An air chamber is often fabricated onsite by the plumber as he or she installs the plumbing system, using ordinary pipes and fittings. Or, you can buy commercial air chambers, which are really just short stubs of pipe that are already capped.

Either way, an air chamber is comprised of a tee-fitting that connects to the main plumbing pipe, with a short run of horizontal pipe that then leads to a section of capped vertical pipe roughly 6 inches long. Because this dead-end pipe is located outside the main water flow, it traps a pocket of air.

In operation, when a faucet or other water valve shuts off quickly, the air in the chamber compresses temporarily under the water pressure, absorbing the shock that otherwise would go into the pipes and cause them to bang. In many homes, the air chambers are located near the wash tub alongside a washing machine, a common source of water hammer. But it is wise to install air chambers at critical spots throughout a building. Local building codes may require them at prescribed locations.

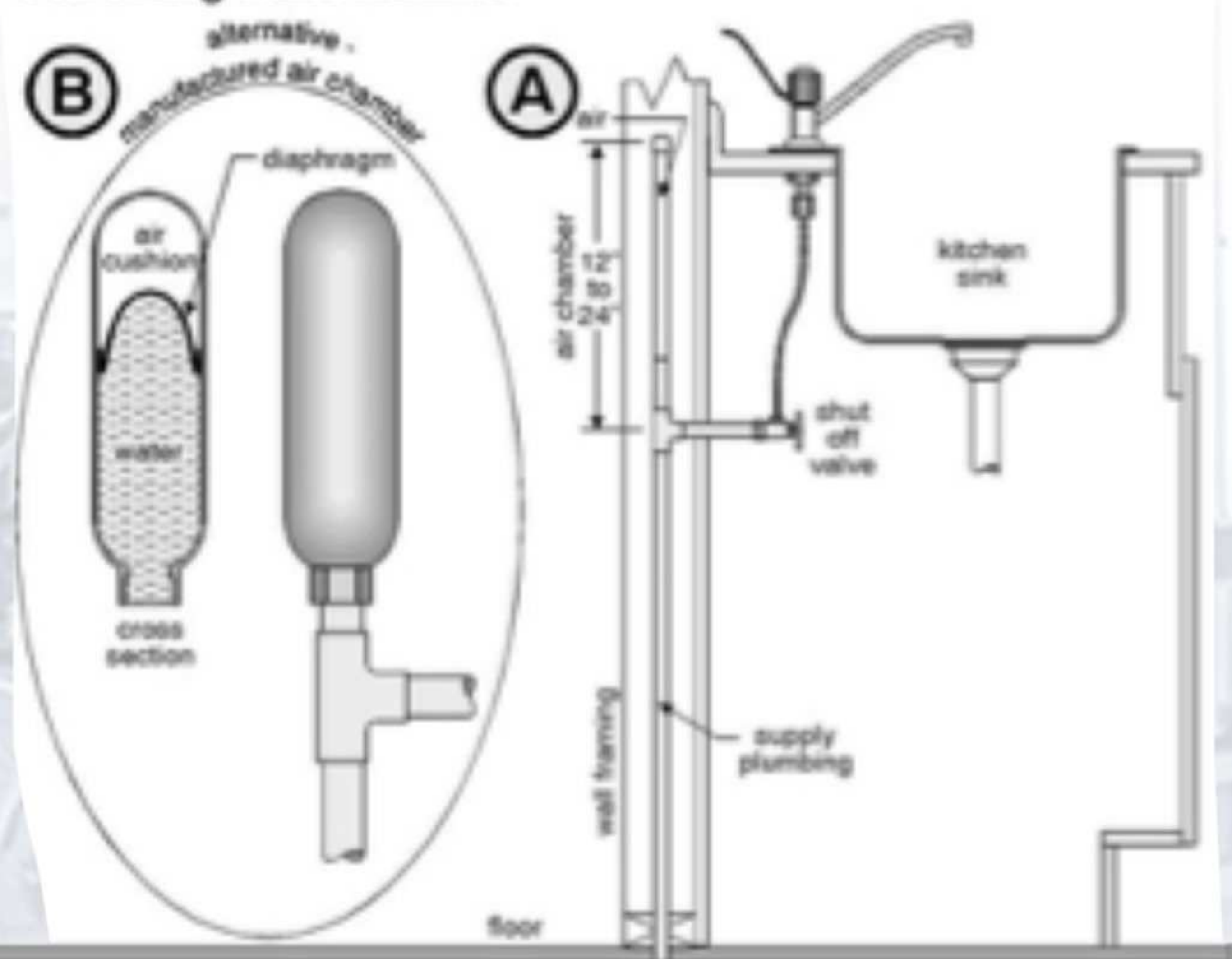
One problem with an air chamber is that they can become filled with water and cease to function correctly. This can be corrected by periodically draining the entire water supply system, which will restore the air to the chambers. To recharge the air chambers:

1. Shut off the main water valve to the home.
2. Open the building's uppermost water faucet.
3. Drain all water from all pipes by opening the lowest water faucet, normally located in the front yard or the basement of a building. As the water drains out, air will flow into the system through the uppermost faucet, automatically adding air back into the air chambers.
4. Once water has stopped flowing from the lowest water faucet, turn it off, and open the main water valve. Keep the uppermost faucet open until water rises through the system and flows out its spout. Although the rest of the pipes will now be filled with water, the air chambers will remain full of air, restoring their shock-absorbing capacity.

On very rare occasions, air chambers can become clogged with minerals or other debris. They can be cleaned by removing the caps and scouring them out. Installing air chambers that are larger in diameter than the main plumbing lines can also help prevent clogging.

Note: In some areas, building codes may rule out air chambers in favor of mechanical water arrestors or other methods.

Correcting water hammer



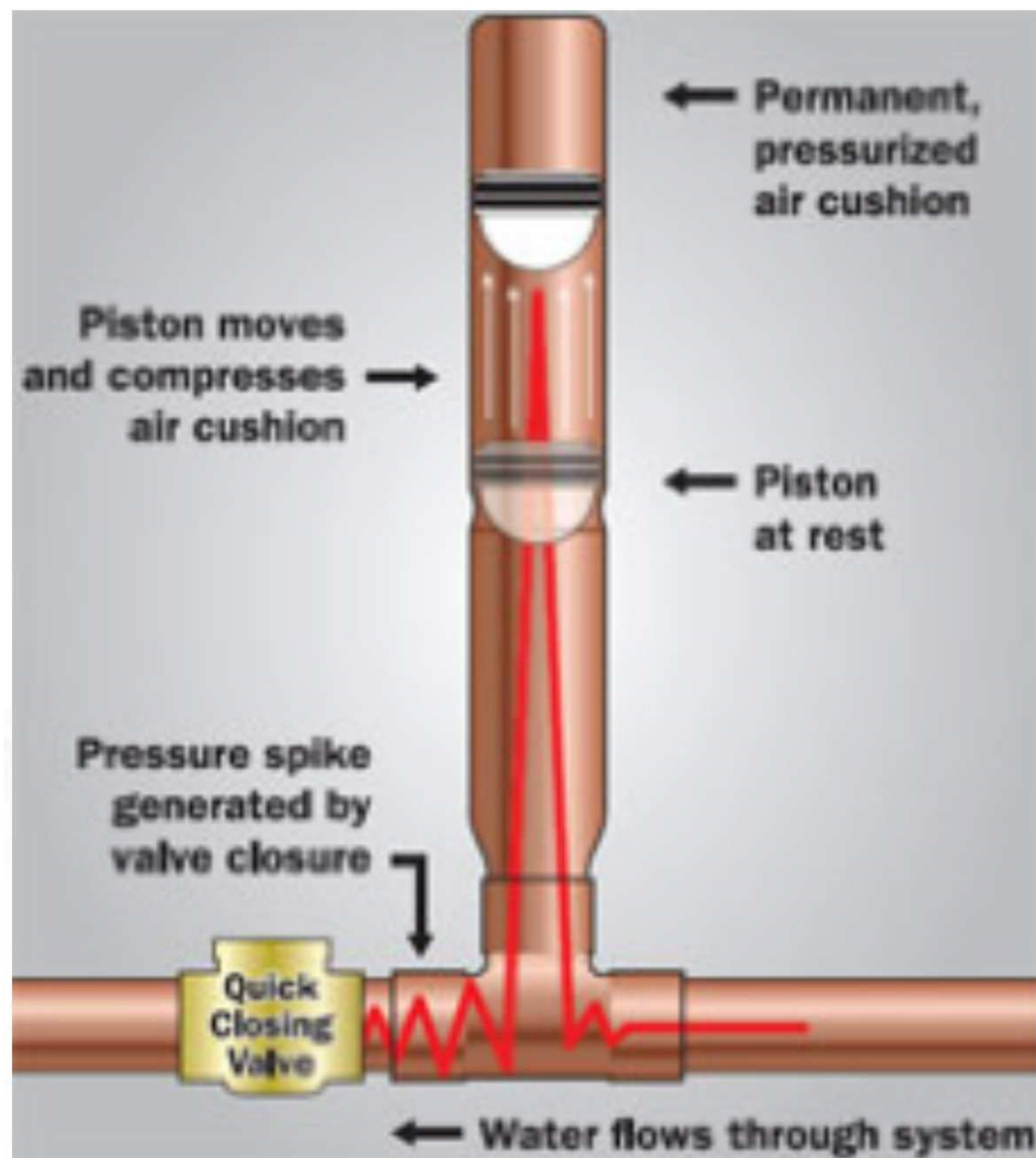
(A) Traditional air chambers (B) Commercial air chambers

3. Installing Mechanical Water Shock Arrestors

Mechanical water shock arrestors are a more sophisticated form of absorbing the shock from water hammer. They work well in situations where air chambers are impractical. Water arrestors are sealed units that contain a spring and air bladder that absorbs water movement to mitigate the effects of water hammer. They are the preferred alternative in commercial buildings and for high water pressure applications. Mechanical water arrestors do not need to be recharged like air chambers, but they will need to be replaced at the end of their life cycle, when the inner springs and bladders wear out.



In this case, installing a water-pressure regulator can solve water hammer issues. Where possible, it's better to install the water-pressure regulator at the location where the main water supply rather than installing multiple appliances and fixtures against high water pressure.



Water hammer arrestors can be integrated into utility sink faucets or washing machine valves. They usually have compression or screw-on fittings for easy installation.

4. Install a Water-Pressure Regulator

Water hammer can also occur when the overall pressure of the main water pipe entering the building is too high. Normal water pressure runs between 30 and 55 psi (pounds per square inch), and above this, the high pressure could be the source of water hammer. Very high pressure above 100 psi can also damage appliances.

References:

- <https://www.thebalancesmb.com/solve-water-hammer-issues-844851>

CONTACT US



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