



*The Affordable, Green HVAC Solution
for Quality Living Environments.*

Premium Comfort.
Exceptional Savings.

The golden years can be one of the most enjoyable and meaningful times in one’s life. For those who design, build, manage and maintain senior living communities, they understand that a quiet, secure and comfortable living environment is essential to senior residents.



A key component to that end is the need for quality heating and cooling from a system that combines home-like comfort, energy efficiency and environmental responsibility; for both building owners and residents. Unfortunately, comfort and efficiency don’t come cheap and often pose a real challenge to building owners. As modifications are made to satisfy budget, comfort and efficiency are compromised. How can you ensure a room comfort experience that meets your residents’ expectations while making it affordable to install, operate and maintain?

The Integrated Piping Heating & Cooling System (IPS™) from Williams is your comfort solution. IPS™ is an impressive, high-end heating and cooling system offering significantly reduced capital expense and cost of operation when compared to competing systems.



The Coventry Retirement Center / 52 Units / Salt Lake City, UT

| Average Cost Range - \$/Square Foot | | |
|-------------------------------------|-------------------|-------------------|
| System | Installation Cost | Operating Cost |
| 4-pipe | \$ 25-27 | \$.70-.90 |
| 2-pipe | \$ 20-23 | \$.90-1.10 |
| WSHP - VRV | \$18-24 | \$.90-1.20 |
| PTAC | \$13-14 | \$1.60-1.80 |
| IPS™ | \$14-15 | \$.80-1.00 |

* Based on electricity costs of \$.10 /kWh and gas costs of \$1.50 /Therm.

Capacity On-Demand vs. Purchased Capacity – The Central Plant Advantage.

With the IPS™ central plant advantage, BTUs are generated at a much lower cost per ton than with unitary compressors, and distributed throughout the building as needed for a more efficient heating and cooling delivery system. You purchase only the compressor horsepower required by the building and its occupants versus the higher per ton costs associated with multiple unitary compressors.

The mechanical components of the system, including compressors and refrigerants, remain in the mechanical room where they belong and not in the living space!



IPS™ offers demand-controlled comfort that's energy-efficient and saves you money!

Will IPS™ Work In My Building?

If your building has domestic hot and cold water piped to each room or suite, you'll likely qualify for the cost-saving benefits of an IPS™ system. The equipment for managing the building's domestic hot water temperature is already in place and is suitable for space heating; a process that's been applied to heating applications for more than 40 years.

By adding a single cold water return pipe, a chiller to manage the cold water temperature and IPS™ Terminal units, you now have a reliable hydronic heating and cooling system that is 100% isolated from the domestic water supply in the building. The result is exceptionally quiet, energy-efficient heating and cooling for a fraction of the usual cost.



4-Pipe Hydronic Comfort at a Packaged Terminal System Price.

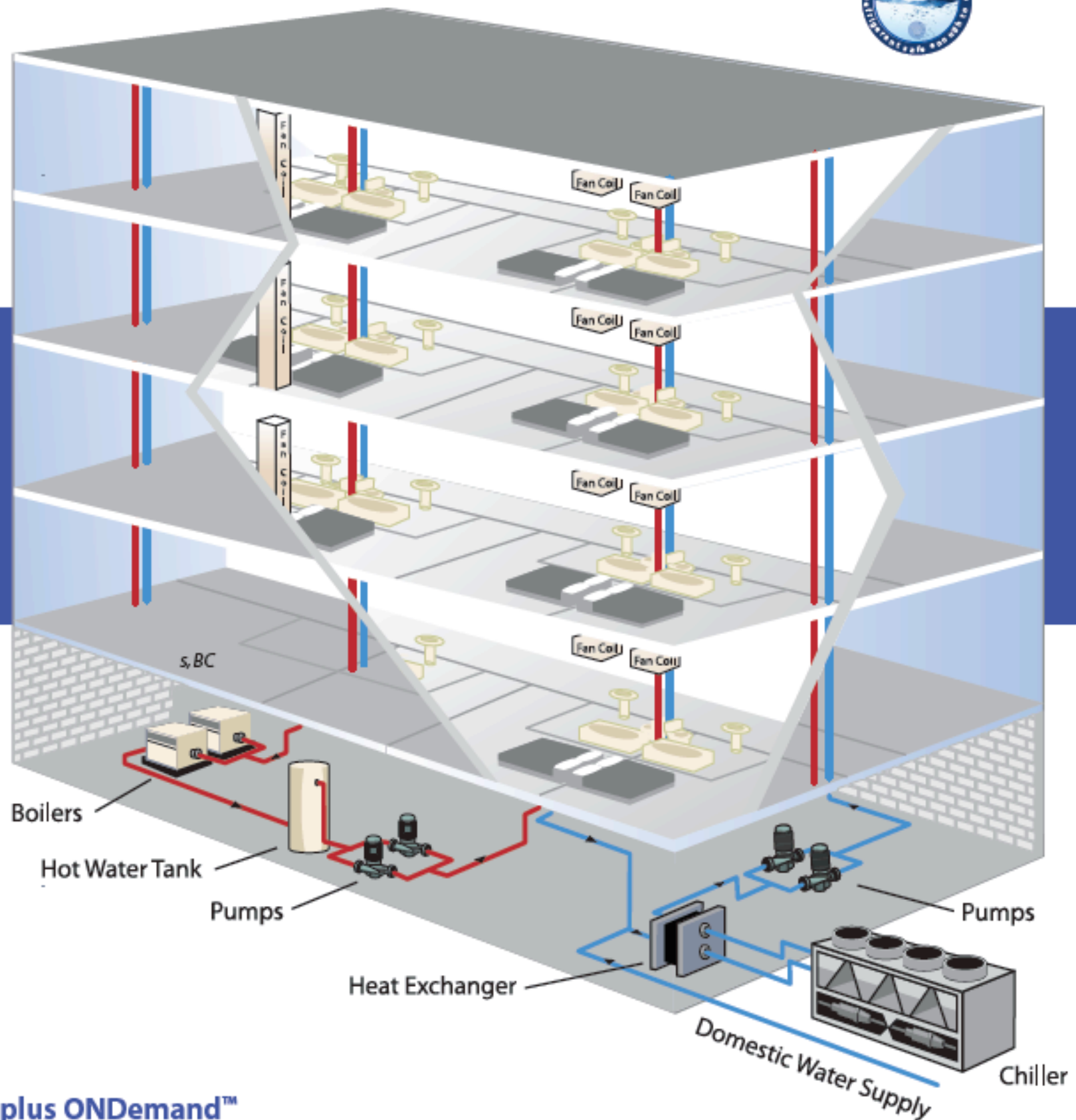
Hydronic heating and cooling delivers the comfort residents expect. To dramatically reduce the installed cost of a 4-pipe hydronic system, you must reduce a considerable amount of the system's pipe.

IPS™ utilizes the domestic water piping and equipment already in the building – *safely and effectively* – to supply quality comfort to terminal units located in each living space. The result is you save thousands in hydronic piping and dedicated equipment when compared to competing systems.



*Dockside Green / Master-Planned, Mixed-Use Community
115 Units / Victoria, BC*

IPS™ - The Integrated Piping System from Williams.



IPS™ plus ONDemand™

Double-wall plate heat exchanger ensures integrity of the potable water supply*

The IPS™ system's double-wall plate heat exchanger fully isolates the chilled water supply from the domestic water at all times.



- Increased comfort throughout your building
- Reduced installed & operating costs
- Significantly less building penetration

IPS™ Control Board

This exclusive control board adapts to all 24-volt fan coil thermostats. It has a coil purge timer per ANSI standard; fan, pump, and damper relays; alarm interrupt with LED flash code for protection against freeze-up and condensate overflow.



- LEED-friendly energy savings
- Quiet operation
- Increased property value

* Double-wall plate heat exchanger may not be required in all jurisdictions and is not supplied by Williams.

The IPS™ Solutions Team - Your Plumber, Mechanical Contractor and Williams!

The team that includes your plumber and mechanical contractor, in combination with Williams' IPS™ Terminal units and system consultation, is key to a successful project. While your plumber manages potable water, your mechanical contractor maintains the cold water temperature and the central system. Plus, depending upon the temperature of water entering your building and your specific situation, benefits such as economizer cooling, heat recovery and Free GeoExchange are possibilities with IPS™.



The IPS™ Terminal contains essential features specifically designed to work with IPS™.

A Proven System That's Code-Compliant.

Routinely viewed by code officials as an innovative system using traditional or standard practices, IPS™ has a proven 10-year track record utilizing your existing domestic water system components. IPS™ is designed to maintain the safety and integrity of the potable water supply at all times.

Potable water for domestic use and water for heating and cooling are 100% isolated from all non-potable devices. Since IPS™ is a domestic water system, no additional water treatment is required.



The IPS™ Terminal

IPS™ Terminal units are designed specifically for use with the system, ensuring reliable operation and maximum efficiency. Along with dedicated sales and engineering support, IPS™ Terminal units are backed by Williams Applied Products, a leader in hydronic HVAC products for commercial applications.

- Individually zoned, giving residents 100% control of their environments.
- Units are selected at low flows to take advantage of larger Delta Ts.
- Factory-mounted control board maintains water quality and allows for the selection of any 24-volt, 4-pipe fan coil thermostat.



IPS™ Advantages

Increased Comfort
Reduced Installed Costs
Reduced Operating Costs
Quiet Operation
LEED-Friendly Energy Savings
Increased Value

*To learn more about Williams and how IPS™ can work to your advantage,
give us a call or visit us at williamsapplied.com.*

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