

INTEGRATED PIPING SYSTEM (IPS)

THE AFFORDABLE GREEN HVAC SOLUTION for hotels, assisted living, condos, apartments and dorms



REMARKABLE EFFICIENCY

When selecting a heating and cooling system for commercial application, it's not uncommon that compromise on certain features and benefits is necessary to meet budget and achieve a reasonable return-on-investment. A quiet, highly comfortable solution with reduced capital costs, energy efficient design, flexible installation and significant LEED point potential often seems too good to be true at an affordable price.

Introducing the Integrated Piping Heating & Cooling System (IPS[™]) from Williams. IPS was designed to provide the cost effective comfort solution you desire, while significantly reducing the capital expense of installation and cost of operation. To achieve these results, the system utilizes the domestic water piping and equipment already required in the building for quiet, comfortable heating and cooling.

With IPS from Williams, your building's domestic water service is also used to supply heating and cooling water to terminal units located in each room, suite or office. Each terminal unit is equipped with an individual thermostat allowing occupants to have complete control of their environments. Moreover, when designed properly, IPS satisfies national and local code requirements.

The result is exceptionally quiet, energy efficient heating and cooling for a lot less than you'd expect.

ADVANTAGES CONTRACTOR	
INCREASED COMFORT	True hydronic heating and cooling comfort for a lot less than traditional systems.
REDUCED INSTALLED COSTS	No dedicated piping and equipment required for space heating such as boilers, pumps and storage tanks.
REDUCED OPERATING COSTS	Less equipment and greater chiller efficiency means a tighter reign on energy usage.
QUIET OPERATION	Out-of-site mechanical system unlike noisy, invasive PTAC units.
LEED FRIENDLY ENERGY SAVINGS	Up to 60% more efficient than PTACs, fewer materials, dual use of the domestic water system, no compressors or equipment in the occupied space and reduced electrical power.
INCREASED VALUE	Better comfort and lower operating costs translate into higher operating income and may increase the resale value of your property.



Since moving BTUs in water is a superior method to moving them in air, experts agree that hydronic heating and cooling is one of the most comfortable and energy efficient methods for space conditioning. With IPS, you'll get an affordable hydronic solution that's easy to design, manage and maintain. No more having to tolerate the inefficiency, noise and discomfort of packaged terminal units in single room or suite applications.

What's more, by utilizing the domestic water piping system for space heating and cooling, dedicated piping and equipment such as boilers, pumps and storage tanks are no longer required. Add a single pipe to create a cold water return loop and virtually all the benefits of a 4-pipe hydronic system can now be yours, for a whole lot less!



WHAT DO WE MEAN BY "AFFORDABLE GREEN?"	The efficiency of a hydronic system along with fewer materials, lower heating and higher cooling water design temperatures and heat recovery make IPS one of the most affordable, LEED-friendly options available today. In applications such as limited service, suite and extended stay hotels, assisted living centers, condominiums, dormitories and apartments, IPS compares favorably with 4 pipe and 2 pipe hydronic, water source heat pump and especially packaged terminal or "PTAC" systems.
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 papartable dovises. Since JPS is a

domestic water system, no additional water treatment is required.

* Local code requirements should be consulted and adhered to. Williams is not responsible for final design approval.

THE INTEGRATED PIPING SYSTEM



BASEMENT LEVEL



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INCREASED COMFORT THROUGHOUT YOUR BUILDING

IPS delivers true hydronic heating and cooling comfort creating an ideal environment for guests or residents, and all for a lot less than traditional fan coil systems.

LEED FRIENDLY ENERGY SAVINGS

Up to 60% more efficient than PTAC units, IPS requires fewer materials, employs dual use of the domestic water system, eliminates noisy compressors in the occupied space and reduces power consumption.

REDUCED INSTALLED COSTS

Use of domestic supply and return hot water lines for space heating eliminates the need for dedicated comfort system piping and equipment, such as boilers, pumps and storage tanks.

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.

REDUCED OPERATING COSTS

Less equipment, reduced run time and greater chiller efficiency means better control of energy usage throughout the year.

QUIET OPERATION

Consolidated, out of the way mechanical system - unlike noisy, invasive PTAC units makes the IPS from Williams virtually invisible.

INCREASED PROPERTY VALUE

Better comfort and lower operating costs translate into higher operating income and may increase the resale value of your property.

REDUCED BUILDING PENETRATION

PTAC units are highly invasive to the building envelope. With IPS, you get a quieter, more comfortable environment without unnecessary exterior penetration of your building.

DOUBLE WALL PLATE HEAT EXCHANGER ENSURES INTEGRITY OF THE POTABLE WATER SUPPLY*

The #1 concern must always be to maintain the safety and integrity of the potable water supply. The Integrated Piping System's double wall plate heat exchanger fully isolates the chilled water supply from the domestic water at all times.

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



TYPICAL FAN COIL / PLUMBING FIXTURE PIPING DIAGRAM



THE RECOMMENDATIONS ARE:

- Piping material for IPS ONDemand mains and runout piping to fan coils should be Copper, Stainless Steel or Polypropylene.
- Piping material for plumbing fixtures should be Copper, Stainless Steel, Polypropylene or PEX.

THE IPSTM TERMINAL UNIT

The IPS Terminal Unit includes essential features and components 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.

- Easy to maintain IPS Terminal Units are custom built to work with IPS and are individually zoned, giving occupants 100% control of their environments.
- Coils can be configured with row selection, circuiting and various fins per inch for optimum performance.
- Units are selected at low flows to take advantage of larger Delta Ts. Lower flows allow IPS Terminal Units to operate at reduced pressure drops.
- The factory mounted control board maintains water quality and allows for the selection of any 24 volt, 4 pipe fan coil thermostat.

• Unit configurations and sizes are selected per individual project requirements to ensure proper fit and performance.





DOCKSIDE GREEN (115 UNITS)



PLAYA DEL SOL (291 UNITS)



ZERMOTT HOTEL & VILLAS (289 UNITS)



THE RIDGE AT HERMITAGE (126 UNITS)



THE COVENTRY (52 UNITS)



TERRA LOSA (198 UNITS)

THE SKY LODGE (126 UNITS)



REGINA RENAISSNACE (158 UNITS)

FOR MORE INFORMATION

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