STØNE

Goodbye
Ugly Window
AC & Radiator

Hello
Slim, Quiet &
89% Savings!

STØNE **cuts heating costs by up to 89%** using the existing infrastructure. **STØNE replaces radiator** systems in older buildings with **state-of-the-art cooling and heating** for each apartment.

STØNE

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10 Great Reasons to Upgrade to STØNE

1 Complies with Local Law 97

STØNE is an innovative high-efficiency heat pump system designed to serve as an alternative to traditional fuel-fired boilers, enabling compliance with local regulations such as Local Law 97.

2 High Efficiency, Inverter, Heat Pump Technology

STØNE's BLDC twin rotary heat pump incorporates cutting-edge technology, providing significant advancements in efficiency and offering highly effective heating and cooling solutions.

3 Super Quiet Operations

No matter where you opt to install the outdoor unit—whether on the roof, in the backyard, or mounted on a wall—the quiet system ensures minimal disturbance to residents.

4 Make Exterior of Building More Attractive

Eliminating unsightly, noisy, and space-consuming window air conditioners will significantly enhance the aesthetics and desirability of your building. This improvement boosts rental occupancy rates, rental income, and the sales price of the apartments.

5 Make Interiors More Attractive

Nothing detracts from the beauty of a stunning apartment like a bulky window air conditioner and radiator. With STØNE, a sleek, paintable terminal provides both heating and cooling, enhancing the apartment's aesthetic appeal.

6 Reclaim Windows

By eliminating the unsightly, bulky, and noisy window air conditioners, windows can be opened, allowing air and more natural light to enter the space.

7 Reclaim the Boiler Room as an Amenity Area

Eliminating the fuel-fired boiler frees up a significant amount of space in the basement, which can be repurposed into a building amenity area, adding value and functionality to the property.

8 Dramatically Lower Cost of Heating

With a fuel-fired central boiler, every apartment is heated continuously, regardless of occupancy or residents' usage, resulting in unnecessary energy consumption and expenses. However, with STØNE, you only pay for the heating and cooling used, ensuring efficient energy and cost savings.

9 Improve Resident Comfort

With typical boiler and radiator-based systems, comfort levels can vary greatly. Some residents may feel too hot and need to open windows, while others may feel too cold. With STØNE, each apartment has full control over its heating and cooling, allowing residents to maintain their desired comfort levels efficiently.

10 Advanced Controls for Each Resident

STØNE provides individual controls for every room in each apartment. Each unit comes with an on-board touch controller, allowing residents to adjust temperature, fan speed, and heating or cooling preferences. Furthermore, sophisticated full-color wall controllers offer full 7-day programmable settings, along with centralized apartment and even building-wide controls. Android and iOS apps are also available for added convenience.

10 More Great Reasons to Upgrade to STØNE

11 Give Residents Total Control of Heating and Cooling in Each Room

With STØNE, every resident enjoys complete control over the temperature in each room, as well as the associated costs. Residents can select cooling or heating options at any time of the year, ensuring personalized comfort and energy efficiency.

12 Cut Unnecessary Waste of Resources

In a fuel-based boiler system, up to 50% of the heat generated is wasted on unoccupied, vacant, or apartments that already have sufficient heat. With STØNE, only units that are actively cooling or heating are in operation, significantly reducing energy waste and optimizing efficiency. This targeted approach ensures that energy is used precisely where and when it's needed, enhancing both comfort and sustainability.

13 Improve Resale Value of Apartments

Buildings equipped with window air conditioners and radiators typically devalue the property. These buildings are perceived as less desirable compared to those with newer resident-controlled heating and cooling systems.

14 Increase Rental Value

Rental apartments equipped with window air conditioners and radiator heat are significantly less desirable compared to buildings offering tenant-controlled heating and cooling systems. This often results in higher rental rates and lower vacancy rates for properties with modern HVAC solutions.

15 Continuous Domestic Hot Water

STØNE ensures continuous hot water supply with redundancy, eliminating concerns or limitations regarding hot water availability.

16 Future Ready

STØNE is a completely modular system that enables additional modules to be added at any time. This flexibility is crucial, especially with the challenges posed by global warming and colder winters. In the future, additional capacity may be needed for both cooling and heating, and STØNE's modular design accommodates these evolving needs.

17 Redundancy For Cooling, Heating and Domestic Hot Water

STØNE's modular design involves multiple units operating together. In the event of one unit failure, the remaining units can ramp up their capacity to compensate for the failed unit until it's repaired. This ensures continuous operation, minimizing disruptions and ensuring uninterrupted heating and cooling for residents.

18 Costs Distributed Fairly

With a central fuel-fired boiler system, every resident pays equally despite the fact that each resident utilizes it unequally. However, with STØNE, residents only pay for the heating and cooling they individually need and want.

19 10-Year Limited Warranty

Our 10-year limited warranty offers peace of mind, assuring building owners that they are investing in a high-quality system designed to operate trouble-free for many years to come.

20 No Pollution

Fuel boilers emit massive amounts of pollutants annually, including 30,000 tons of nitrogen oxides (NOx), over 17,000 tons of sulfur dioxide (SO2), and more than 1,100 tons of fine particulate matter (PM2.5). These pollutants degrade air quality and endanger public health, emphasizing the urgent need for cleaner energy alternatives.


STØNE

Comfort and Aesthetics

STØNE revolutionizes older apartment buildings by enhancing comfort with individual heating and cooling controls for each resident. The removal of window air conditioners improves the building's exterior appearance, while the interiors are transformed into inviting spaces.

Transform the Interior

Ugly, noisy, inefficient window air conditioners block the windows, allowing hot and cold air to leak through uninsulated side panels. Unsightly radiators occupy floor space, making it challenging to clean.

Sleek wall-mounted, paintable Room Modules provide state-of-the-art, individually controlled heating and cooling.

Improve the Exterior

Unsightly window air conditioners block the windows and mar the building's exterior, lowering the aesthetic and value of the building.

With STØNE heating and cooling, all the windows are operable, and the exterior looks sleek, improving the desirability and value of the building.

Gain Building Amenity Space

Before

A large mechanical room with clearances required for the boiler and hot water tank occupies a large space in the basement.

After

With STØNE, the unit is on the roof and the mechanical room can be repurposed as a building amenity area.

Gain Usable Floor Space

Before

Radiators are visually unappealing and take up valuable floor space, and make the room less spacious.

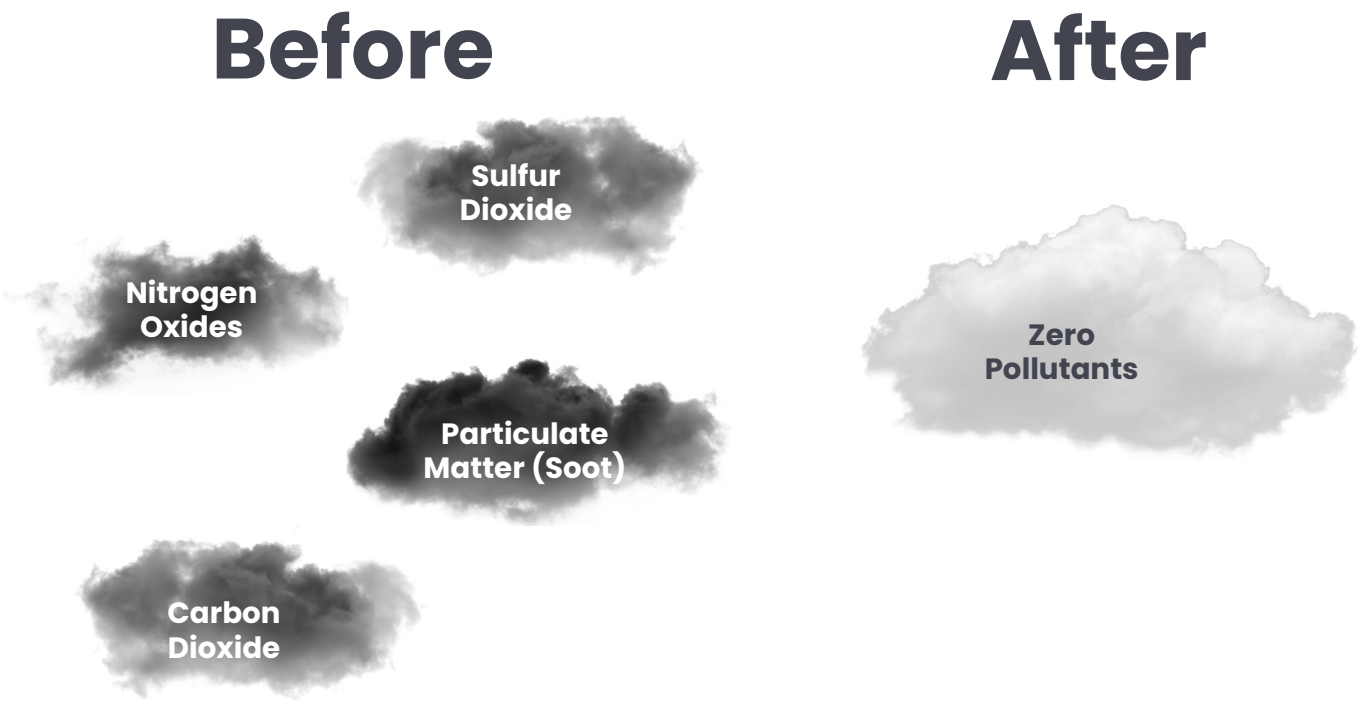
After

STØNE room modules have a sleek profile of just 5 inches deep, reclaiming around two square feet of usable floor space per unit, Additionally, STØNE modules are wall-mounted, creating the illusion and feeling of more space.

100% Less Pollutants

According to the U.S. Environmental Protection Agency (EPA) residential, commercial, and institutional heating systems in New York City alone released more than 30,000 tons of nitrogen oxides (NOx), over 17,000 tons of sulfur dioxide (SO2) and over 1,100 tons of soot or fine particulate matter (PM2.5) into the atmosphere every year. Compared to on-road motor vehicles, residential and commercial boilers emit fifty percent more PM2.5 and seventeen times more SO2 every year. These emissions contribute to poor air quality in New York City and other large metropolitan areas.

Heat pumps are electrically driven systems with no combustion and no pollutants spewed into the air. Clean, efficient and zero pollutants.

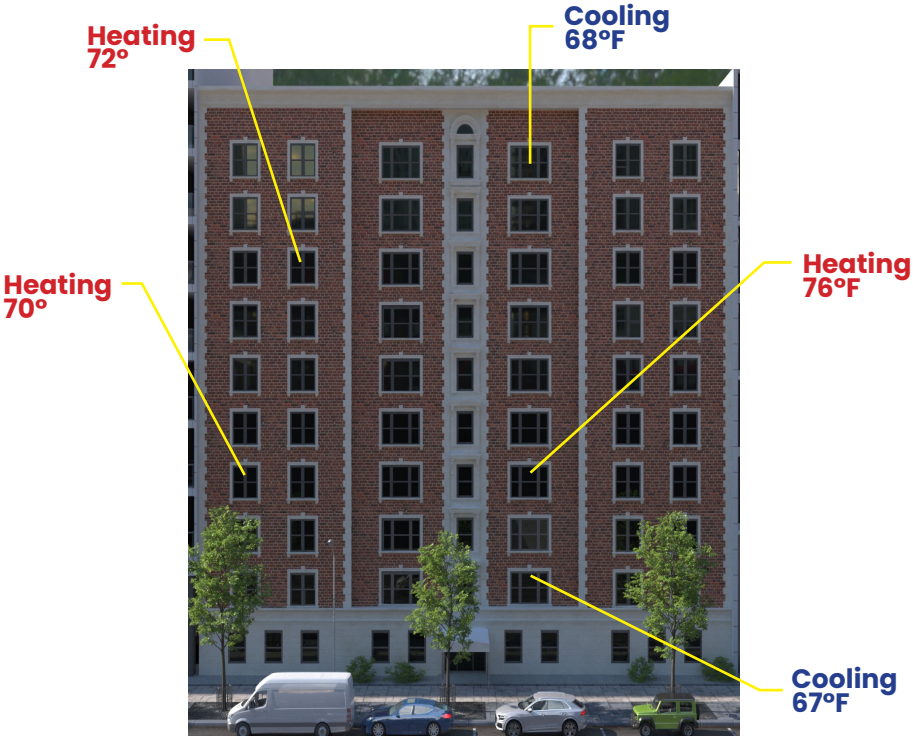


Source The Bottom of the Barrel. Environmental Defense Fund by M.J. Bradley & Associates LLC and the Urban Green Council (www.urbangreencouncil.org). The full report and the individual chapters can be accessed at www.edf.org/dirtybuildings .

Flexible Cooling & Heating for the Entire Building

Before

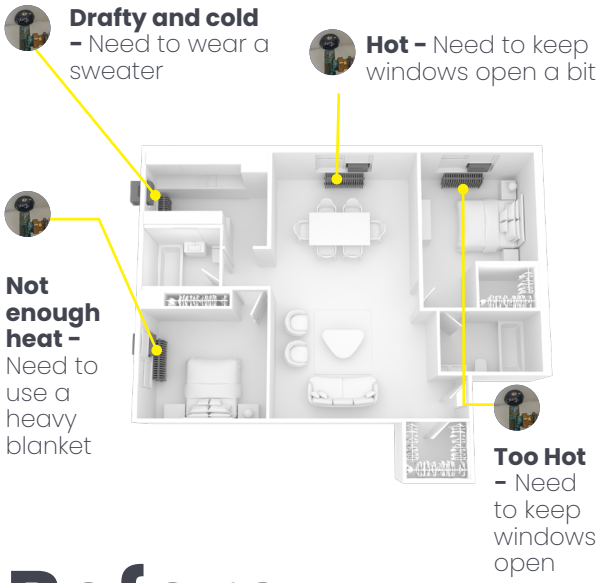
With one central system every apartment is forced to have the same temperature. The only way for residents to adjust the temperature is by opening windows.



After

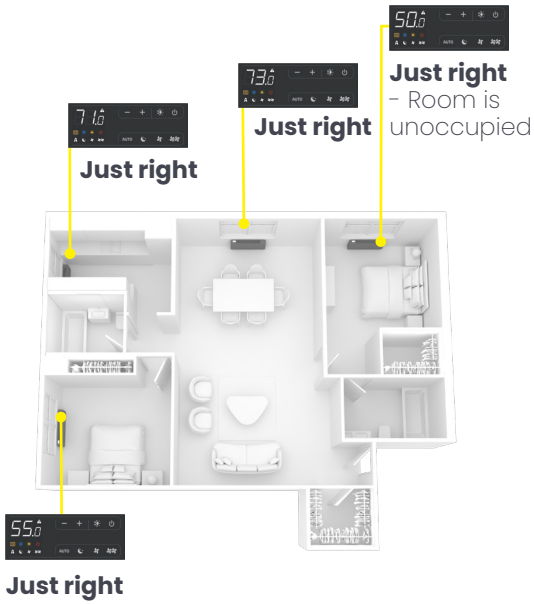
With STØNE, every apartment can have the desired fan temperature they want and even choose between heating and cooling anytime of the year.

Flexible Cooling & Heating Inside Each Apartment



Before

Every apartment and room gets heat - some too much and some too little. The only way to really regulate the heat is by closing a radiator or opening windows. Not a very efficient or effective way to control the temperature!



After

STØNE is super flexible and provides each room with the exact temperature requested by that room's controller. Therefore, rooms can have heating or cooling, and at any temperature. Each room is fully independent from the others and from other apartments.

Advanced Controls in Every Room

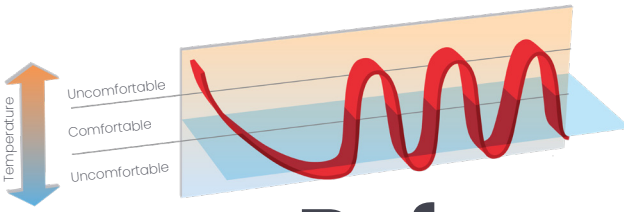
Before

Radiators don't offer a lot of control. Usually, the best control is opening windows to release excessive heat.

After

STØNE delivers comprehensive control of fan speed, precision temperature, and heating/cooling modes via onboard touch, wall-mounted, and Wi-Fi controls. The Wi-Fi app enables scheduling for optimized efficiency and comfort. Additionally, seamless integration with existing smart home setups enhances functionality and connectivity.

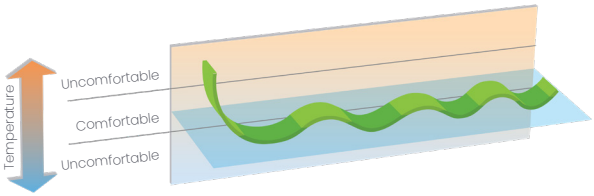
Dramatically Improve Cooling Comfort



Before

Window air conditioners typically employ a single-speed compressor that activates when the room temperature rises a few degrees and deactivates upon reaching the set point.

This constant cycling between on and off modes often results in overcooling the room before shutting down, only to restart shortly after as the temperature increases again. As a result, it leads to inconsistent room temperatures, fluctuating between being too warm or too cold, and never maintaining the optimal temperature.



After

STØNE's advanced BLDC inverter compressor ensures superior comfort by adjusting compressor speed continuously. This maintains a consistent room temperature without fluctuations.

Dramatically Improve Heating Comfort

Before

With a central fuel-fired boiler and radiator system, almost no one is happy. Some residents are too hot and must open the windows, while others are too cold and wear sweaters, often resulting in numerous complaints.

After

With STØNE, every resident can set their own temperature, not just in their apartment, but on a room by room basis, so everyone inside the apartment has their ideal temperature. Residents can even have cooling in the fall and winter months and heating in the summer or spring. Everything is up to the resident.

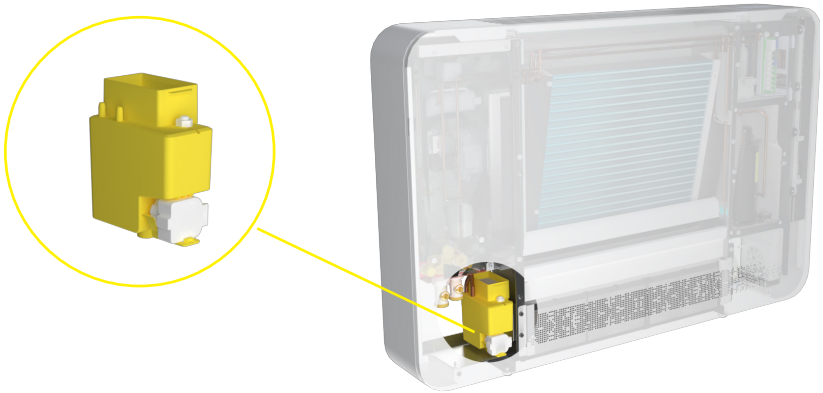
No More Drips on People's Heads

Before

Window air conditioners drip all summer on passerby's heads. It's not pleasant to be dripped on as you walk in the street or into your building.

After

STØNE does not drip the condensate on people's heads. Instead, STØNE injects the condensate into the existing radiator piping system that is now being used to power the STØNE room module. No drain is required.



Dramatically Reduce Noise in Cooling

Window air conditioners constantly cycle between active and inactive cooling, where each time the system activates, there is a loud noise as the compressor activates.

STØNE's inverter compressor remains active continuously, adjusting its output to precisely meet the room's requirements. It smoothly ramps up and down as necessary, avoiding the disruptive on and off noises associated with traditional systems. As a result, the system operates very quietly, ensuring a peaceful environment.

STØNE

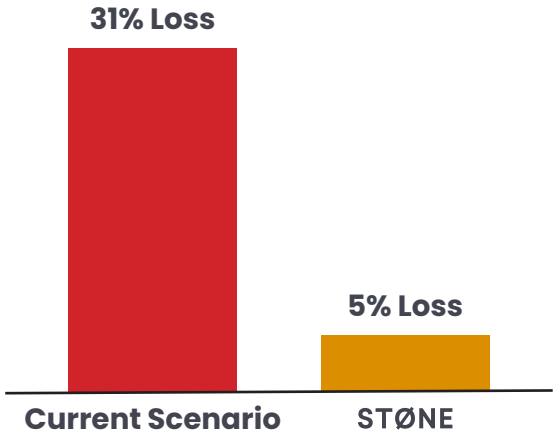
Heating Savings and Efficiency

STØNE offers the potential to cut heating expenses in buildings by an impressive 89%. This substantial reduction takes into account various factors, including heat loss during distribution, leakage and thermal bridging caused by window air conditioners, the cost-effectiveness of electricity compared to gas or oil, and the superior performance of inverters. Furthermore, the savings become even more remarkable when factoring in reduced expenses for maintenance staff and engineers, coupled with minimal maintenance costs.

84% Less Heat Lost in the Pipes

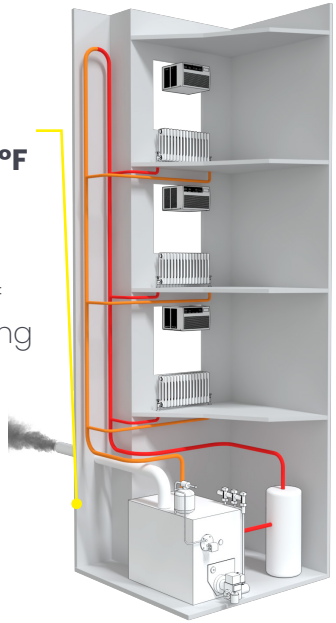
Hot water distribution loss is huge.

Hot water distribution plays a crucial role in heating systems. In high-temperature systems with radiators, water temperatures range from 140°F to 180°F, resulting in approximately 31% heat loss in distribution pipes. Conversely, water loop systems operate at room temperature, around 68°F to 77°F, minimizing distribution losses to around 5%.



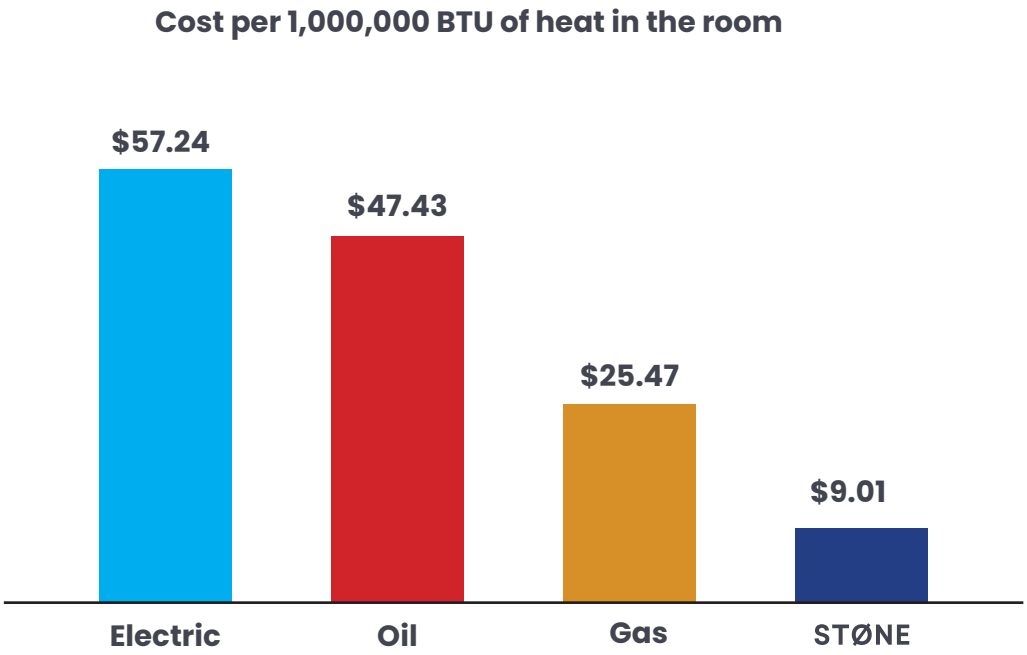
Room temperature water exits the STØNE Power Module at 71.5°F and arrives at the STØNE Room Module at approximately 68°F with only 5% or less lost along the way.

Hot water exits the boiler at 180°F and reaches the radiator at approximately 140°F, with 31% of the heat lost along the way.



81% Cheaper Per BTU of Heating

There are many factors that influence the cost of heating. Oil is the most expensive per BTU of heat needed, with gas being less expensive and more efficient. Heat pump heating which uses less electricity is by far the least expensive way to heat. The numbers below only reflect the cost to produce 1,000,000 BTU of heat and do not take into consideration the distribution losses or leakage losses which increase the cost per BTU. Electric resistance heat is shown for comparison.



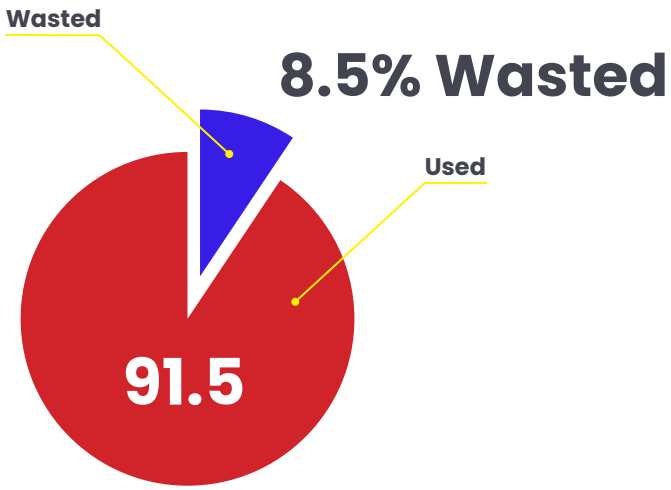
Based on Electricity $0.18 per kWh, Fuel Oil $4.27 per gallon and $19.10 per MCF (1,000 cubic feet) of gas. An efficiency loss of 35% is used for oil and 25% for gas. Depending on the age of the boiler, the efficiency loss can be higher or lower. The range of loss on oil is between 25% and 50%, the range of loss on gas is between 15% and 35%.

100% Less Air Leakage in the Room

Window air conditioners leak air. Cold air in the winter, creating a draft while increasing heating costs. In the summer, hot air to enters, causing the air conditioner to work harder -increasing the operating cost.

On average, window (and through the wall) air conditioners waste about 2.75 Million BTUs, or 275 hours of heat over the winter heating season to compensate this loss.

This leakage adds between $62 and $128 per year per room! With STØNE, the windows are closed and the wall sleeve can be sealed, completely eliminating this loss.

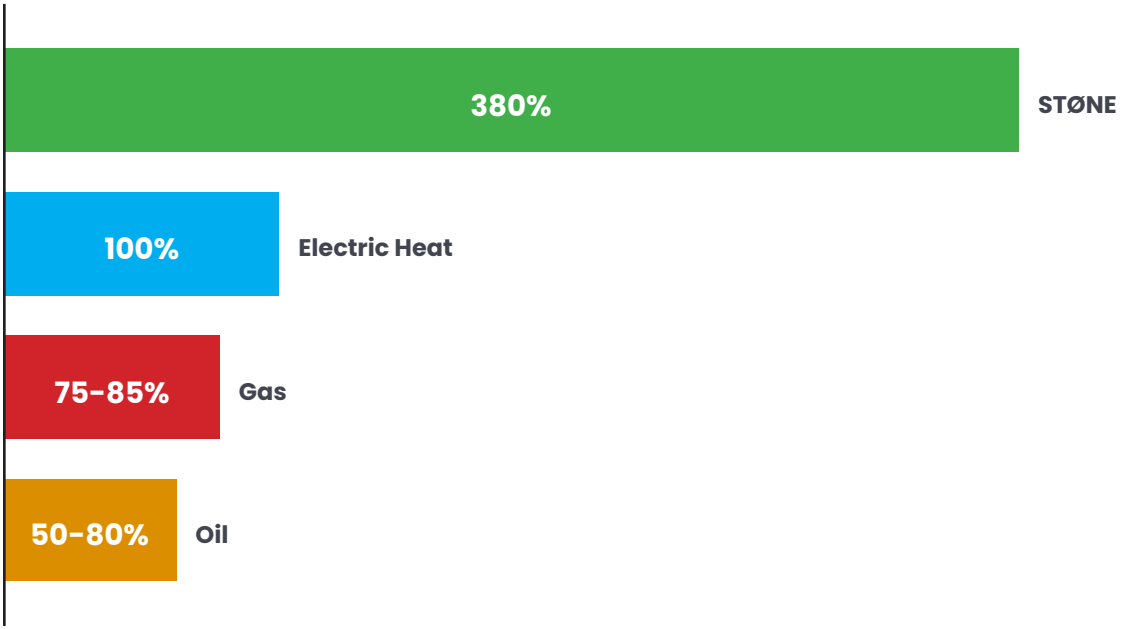


According to a study by Steven Winter Associates: There Are Holes in Our Walls, on average Window air conditioners leak 7.6 square inches of air. This infiltration adds substantial operating costs - to heat and cool the infiltrated outdoor air and increased humidity. Https://www.urbangreencouncil.org/wp-content/uploads/2022/11/2011.04.14-Holes-in-Our-Walls.pdf

6.9 Times More Efficient

When comparing heating systems, a crucial aspect to consider is their efficiency in converting the energy source into heat. Among these, oil stands out as the least efficient. For instance, when a gallon of gas is converted into heat, only 70-85% of its energy is utilized. This means that if gas costs $1.90 per therm, with each therm equivalent to 100,000 BTU, you only receive 75,000 BTU instead of the full 100,000 BTU. In contrast, systems like STØNE offer a higher efficiency, providing 38,000 BTU for each kilowatt-hour (Kw) of electricity. Essentially, higher efficiency equipment allows for a more effective utilization of the energy purchased, while inefficient systems result in higher costs per energy unit. It's important to note that the efficiency of older furnaces may degrade over time due to poor maintenance, potentially dropping from their original 70% efficiency to as low as 50%.

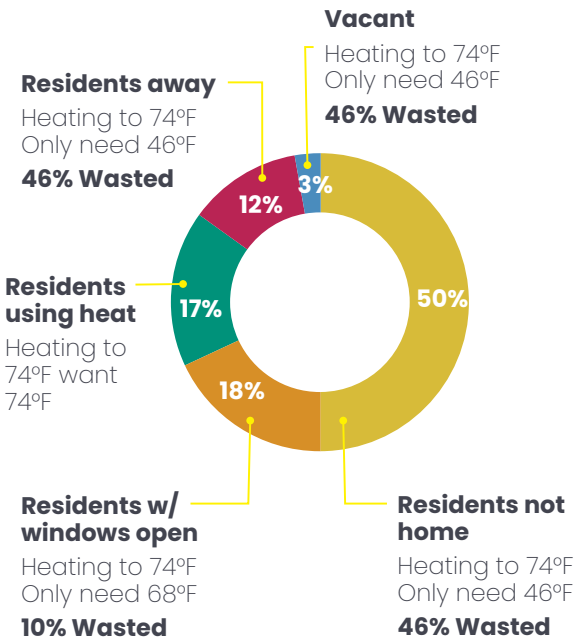
Many studies show that even regular electric resistance heat, with COP of 1.0, is cheaper to operate than gas or oil.



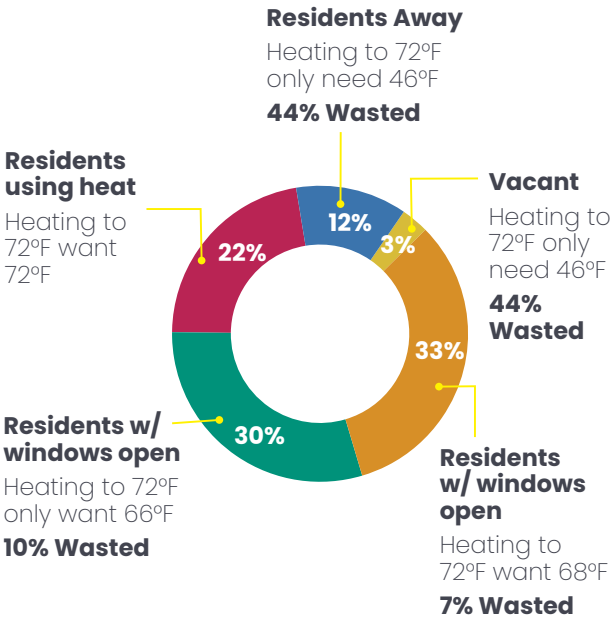
22% Less Buildingwide Heat Used

Switching from a boiler-based system to STØNE technology leads to significant savings. Unlike traditional systems, where the entire building is heated indiscriminately, STØNE adjusts heat output based on actual occupancy needs. This results in a reduction of 31% in heat needed during the day and 12% less needed at night. Overall, this switch translates to a 22% decrease in heating requirements, minimizing both energy consumption and costs.

31% Less Daytime Heat Used



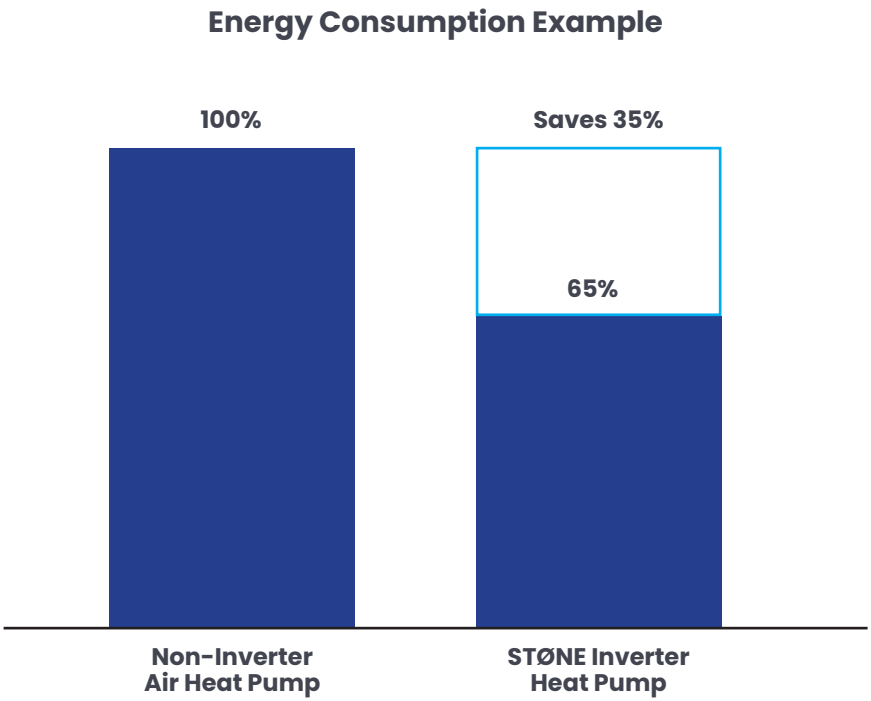
12% Less Nighttime Heat Used



The following calculations are provided for informational purposes only and do not constitute professional advice or recommendations. The figures are based on an average 35°F outdoor with daytime 74°F heat for 10 hours, nighttime 72°F for 14 hours, and a 46°F when the apartment is unoccupied or vacant. Actual energy usage may vary based on factors not accounted for in these calculations. It is recommended to consult with a qualified professional regarding energy management and optimization strategies.

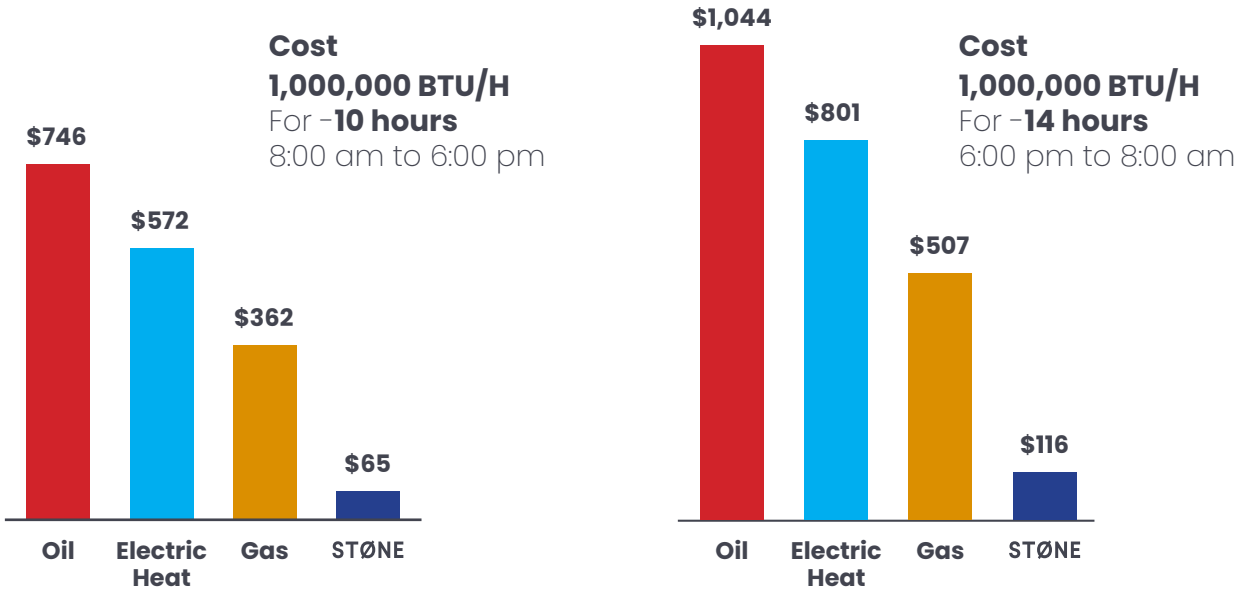
35% Less Electricity

Inverter air conditioners utilize advanced technology to adjust compressor speed based on cooling requirements. Unlike traditional models with fixed speeds, inverters vary compressor speed, consuming only necessary energy to maintain desired temperatures. This dynamic operation significantly reduces energy consumption by avoiding frequent starts and stops, resulting in lower electricity bills and long-term savings for users. It's important to note the EER rating is not related to the inverter. If two air conditioners have the same EER, the one with an inverter will use between 25% and 65% less power over an 8 hour period. Learn more about inverters in our resource section at the back of this brochure.



89% Overall Savings on Heating Costs

When comparing a boiler-based radiator system to STØNE technology, the total savings amount to approximately 89%. This significant difference stems from several factors. First, heat pump is 6.9 times more efficient than oil. Second, STØNE experiences less distribution loss, leading to improved efficiency. Third, the cost per BTU of heat is lower as STØNE uses electricity based on an inverter driven heat pump technology. Third, the leakage created by window air conditioners is eliminated. Finally, STØNE's adaptive nature means that only active units requiring heat are utilized, reducing overall energy demand. These combined benefits result in substantial savings. Residents can further enhance savings by managing room temperatures individually and employing smart thermostats for precise control over each unit's temperature.



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The Math behind the Savings

Sample Case study

Apartment building with 100 apartments, avg apartment size 1,000 sq ft. spending $127,921 for heating using a No. 2 Gas boiler. 1,000 BTU is equal to 1 MBH.

Current Situation

Gallons per hour used	49	
Cost per hour of heat	**$211**	($4.27 per gallon)
Current Boiler MBH Input	**6,848**	
Less efficiency factor of oil	-2,397	(35% loss)
MBH Output	4,451	
Less heat lost in distribution	-1,380	(31% loss)
MBH left to heat rooms	3,071	
Less MBH lost through window A/Cs	-240	(8.5% loss)
MBH left actually needed	**2,831**	

Of 6,848 MBH generated, only 2,831, 42% are actually used for heating. 58% of the heat is wasted! Compare that to the most inefficient electric resistance heat, and electric heat is even less expensive.

STØNE

Only 2,831 MBH of heat is actually needed, as with STØNE the window air conditioner is removed, eliminating the leakage.

MBH Input	2,9721	
Less MBH lost in distribution	-141	(5% loss)
MBH left to heat rooms	**2,831**	
Kw of Power used	229	(3.81 COP)
Inverter Efficiency Boost	-80	(35% Inverter Boost)
Cost Per Hour	**$27**	($.18 per kW)

This is an 87% savings!

On top of that, with STØNE the whole building does not need to be heated. Why heat at max temperature vacant or unoccupied apartments when you can simples turn down the heat and save resources and money. This can translate to as little as **$21.28 an hour or 89% savings!**

Guaranteed Savings

Actions speak louder than words. Our proposal for your building speaks volumes through the guaranteed savings we promise—75% of the calculated amount. This written assurance ensures you that our proposed savings are not just hypothetical but tangible.

In the rare circumstance that the savings fall short of 75% of our estimation, we pledge to compensate you for the difference for a period of up to 10 years!

Save On Maintenance Costs, Fines, and Employee Costs

Traditional buildings with boilers usually necessitate the presence of a full-time certified engineer.

Moreover, boilers frequently experience breakdowns, leading to costly repairs and the need for temporary heating solutions.

With STØNE, the need for an on-site engineer is eliminated as each power module has under 10 tons of heating power. Additionally, there is no constant need for maintenance. Furthermore, in the event of a module failure, the other modules can increase their output to compensate until the faulty module is repaired.


STØNE

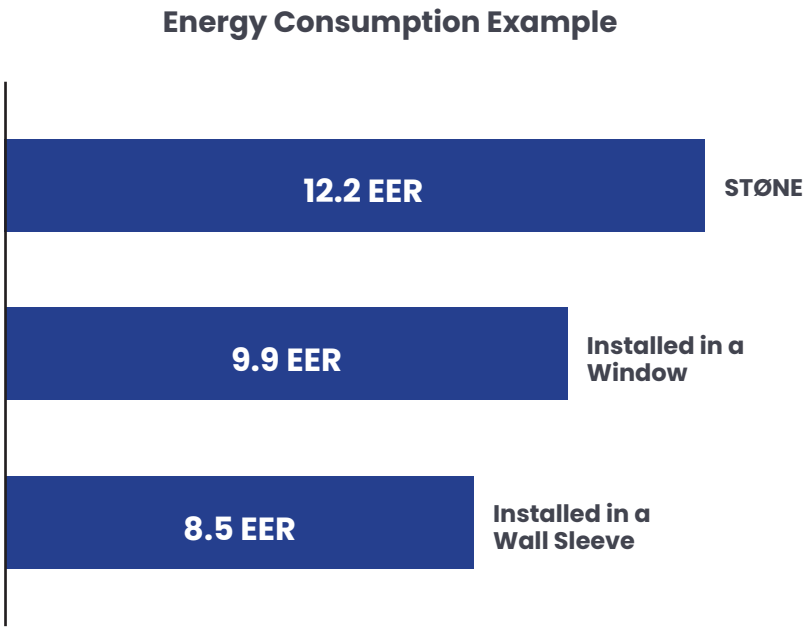
Cooling Savings and Efficiency

STØNE offers the potential to slash cooling expenses for each resident by up to 56%. This substantial reduction takes into account various factors including the superior performance of inverters, as well as leakage and thermal bridging caused by window air conditioners. Furthermore, the savings become even more remarkable when factoring in comprehensive controls that allow for programing times for on/off and temperatures.

44% Better Efficiency

Window type air conditioners are typically highly inefficient with many models have EERs as low at 8.5 or even worse. Back breather type air conditioners, that fit into wall sleeves are worse than ones that sit in the window.

STØNE's high efficiency, inverter driven compressor outperforms window air conditioner by as much as 75% when factoring the inverter savings.

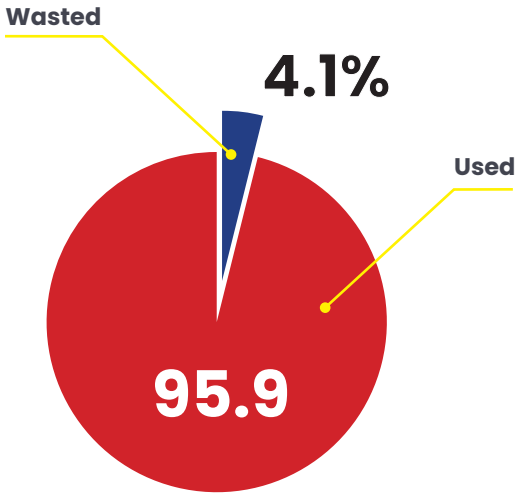


100% Less Air Leakage in the Room

Window air conditioners leak air. In the summer, hot air and heat enters the room from around the air conditioner and through the air conditioner causing the air conditioner to work harder -increasing the operating cost.

On average, window air conditioners waste about 1.8 Million BTUs, or 180 hours of cooling over the summer season to compensate this loss.

This leakage adds between $21 and $27 per year per room. With STØNE, the windows are closed and the wall sleeve can be sealed, completely eliminating this loss.



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https://www.urbangreencouncil.org/wp-content/uploads/2022/11/2011.04.14-Holes-in-Our-Walls.pdf

35% Inverter Savings on Energy

Inverter air conditioners utilize advanced technology to adjust compressor speed based on cooling requirements. Unlike traditional models with fixed speeds, inverters vary compressor speed, consuming only necessary energy to maintain desired temperatures. This dynamic operation significantly reduces energy consumption by avoiding frequent starts and stops, resulting in lower electricity bills and long-term savings for its users. It's important to keep in the mind the an EER rating is not related to the inverter. If two air conditioners have the same EER, the one with an inverter will use between 25% and 70% less power over an 8 hour period.

Non-Inverter Air Heat Pump

STØNE Inverter Heat Pump

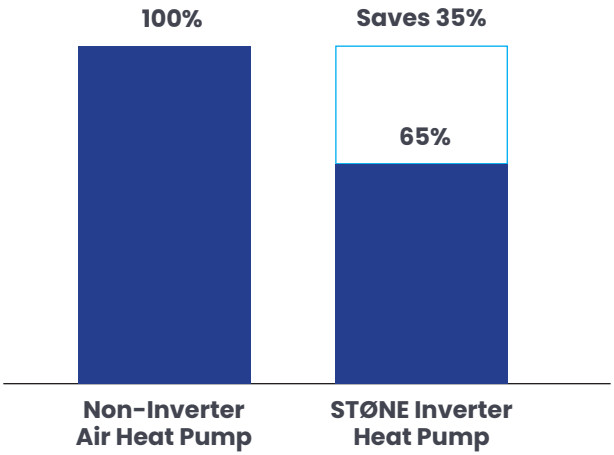
Non-Inverter

Continuously switching between sprinting and resting wastes more energy.

Inverter

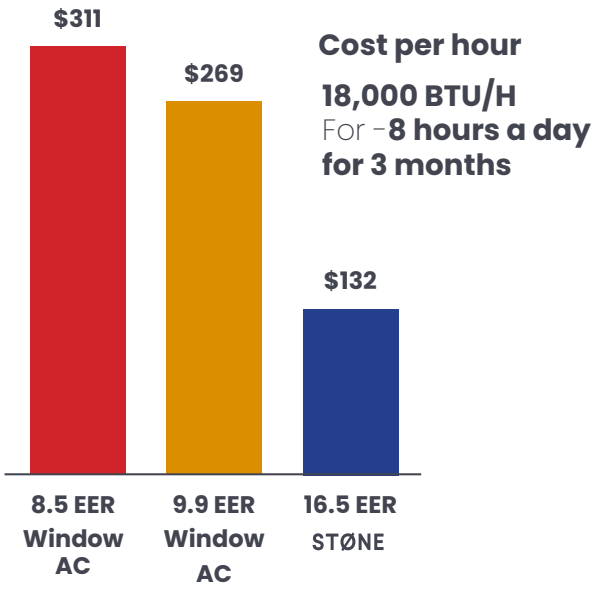
Maintaining a steady pace and making small adjustments is more energy-efficient.

Energy Consumption Example



56% Overall Savings on Cooling

When comparing a window air conditioner to STØNE technology, the total savings amount to approximately 60%. This significant difference stems from several factors. First, STØNE has a substantially higher efficiency rating. Second, the cost per BTU of cooling is lower as STØNE uses inverter based heat pump technology. Third, the leakage created by window air conditioners is eliminated. Finally, STØNE's adaptive nature means that only active units requiring heat are utilized, reducing overall energy demand. These combined benefits result in substantial savings. Residents can further enhance savings by managing room temperatures individually and employing smart thermostats for precise control over each unit's temperature.



The following calculations are provided for informational purposes only and do not constitute professional advice or recommendations. Basis for data : Electricity $0.18 per kWh. STONE based on a 12.2 EER with a 35% inverter reduction providing an effective 16.5 EER when compared to non-inverter units.

The Math behind the Savings

Sample Case study

Typical 700 sq foot apartment with 2 window air conditioners totaling 20,000 BTU with an 8.5 EER energy rating.

Current Situation

KW of power used per 100 hours	235	
Cost per hour of cooling	**$42.35**	($.18 per kW)
BTU output	20,000	
Less heat infiltration through window AC units	- 1,700	(8.5% loss)
BTU left actually needed	**18,300**	

Of 20,000 in BTUs generated, only 18,300, 92.5% are actually used for cooling. 8.5% of the cold air is wasted!

STØNE

Only 18,300 BTU of cooling is actually needed, as with STØNE the window air conditioner is removed, eliminating the leakage.

BTU needed	18,300	
Add cold lost in pipes	+963	(5% loss)
Total BTU Needed	**19,263**	
Kw of Power used per 100 hours	1.43	(12.2 EER)
Inverter Efficiency Boost	-0.5	(35% Inverter
Cost Per Hour	**$18.47**	($.18 per kW)
Savings per hour 100 hours	**$23.88**	

This is a 56% savings!

On top of that, with STØNE it's easy to control the temperature on schedules and activate and deactivate with a wi-fi app, enabling each resident to reduce consumption.

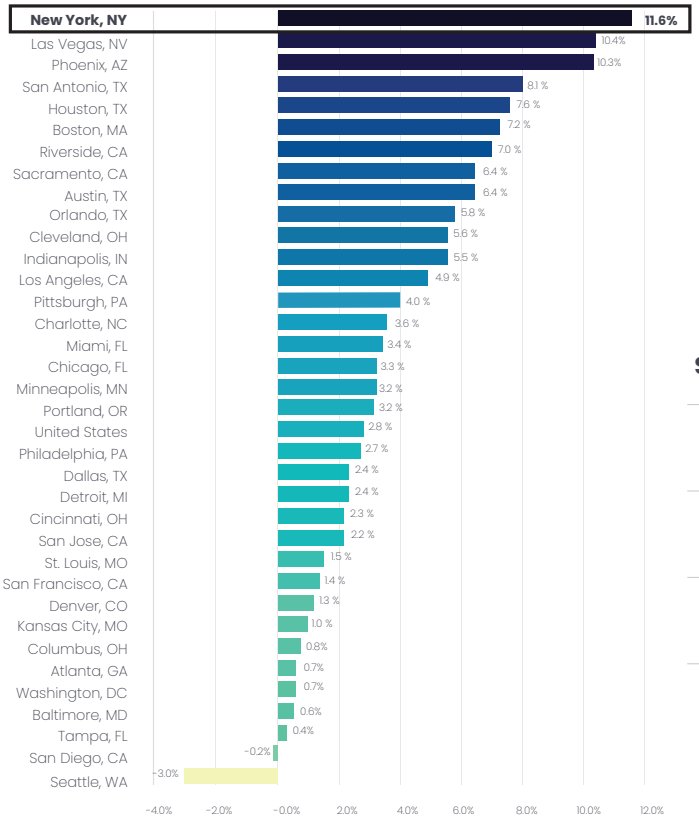

STØNE

Increased Value

STØNE revolutionizes older apartment buildings by enhancing comfort with individual heating and cooling controls for each resident. The removal of window air conditioners improves the building's exterior appearance, while the interiors are transformed into inviting spaces.

Increase Rental Income by 11.6%

In NYC, apartments using window air conditioners are considered less desirable and rent for 11.6% less. Installing STØNE not only improves the quality of life, and saves on operating costs, but also provides an excellent return. When adding in incentives and rebates, the return can be dramatically higher.

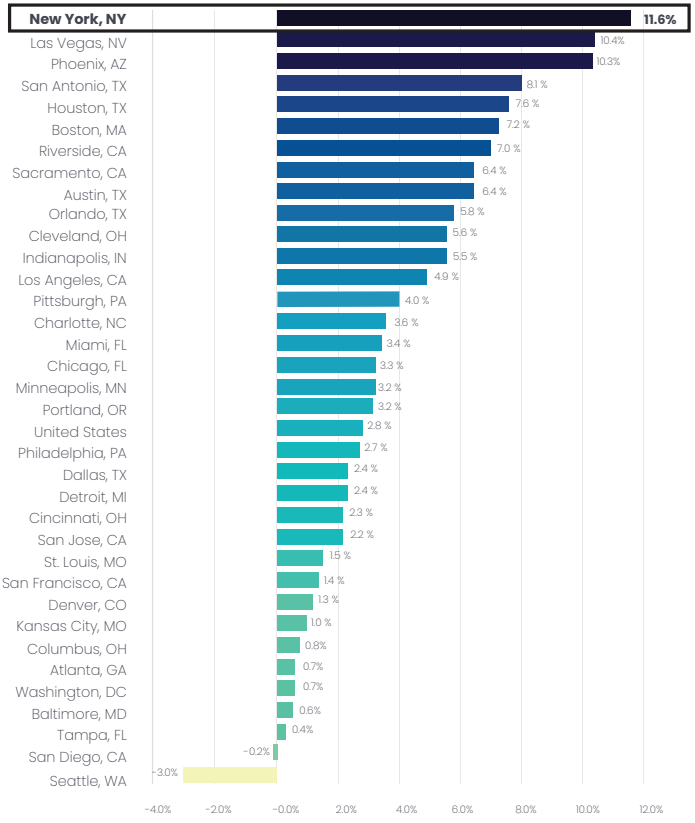


	Annual Rent Increase	Fully Installed Cost*	10-year Gain	10-year ROI	Avg. ROI
Studio	$4,214	$13,550	$49,442	**266%**	**14%**
1 Bed	$5,052	$21,900	$59,269	**171%**	**11%**
2 Bed	$6,960	$35,422	$81,675	**131%**	**9%**
3 Bed	$8,662	$42,570	$101,620	**138%**	**9%**

The fully installed cost is estimated for a typical apartment of average square footage, but actual costs may vary due to different factors. Larger apartments with higher ceilings will incur additional expenses for equipment and installation. The fully installed price reflects a rebate of $4,000 per apartment plus - whichever is greater and which is guaranteed by Ephoca. On the STØNE system, which may vary based on project size. Additionally, we assume a 3.5% annual rent increase, based on data from Zillow's research on rental trends. For more information, refer to the link: Zillow Central Air Home Rent Premium Study https://www.zillow.com/research/central-air-home-rent-premium-20436/

Increase Resale by at least 2.1%

In NYC, apartments using window air conditioners are considered less desirable and sell for 2.1% less. Installing STØNE not only improves the quality of life, and saves on operating costs, but also provides an excellent return. When adding in incentives and rebates, the return can be dramatically higher.

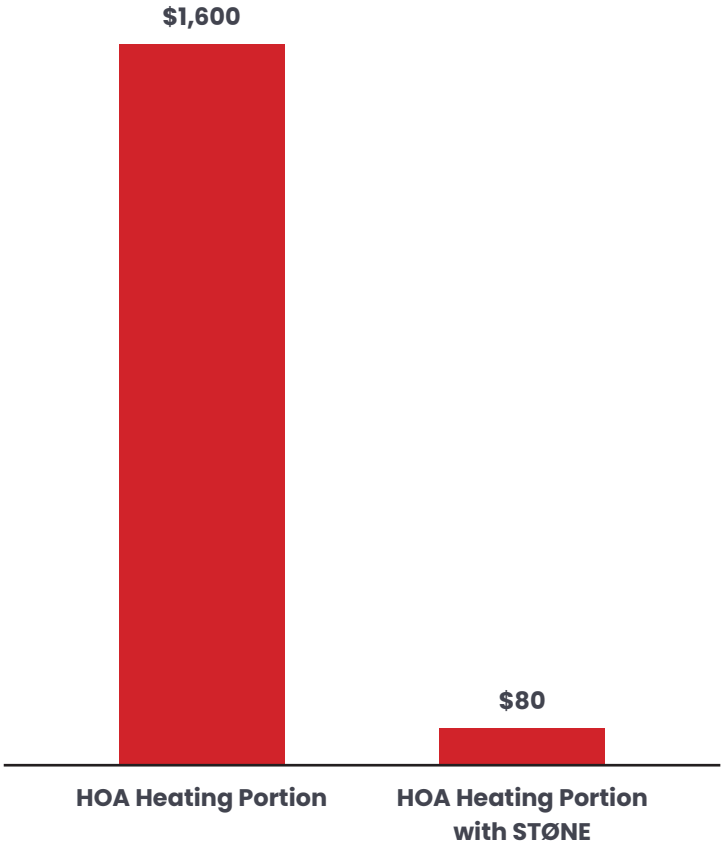


	Increase in Sale Value	Fully Installed Cost*	10-year ROI	ROI
Studio	$20,327	$13,568	**266%**	**50%**
1 Bed	$25,898	$22,300	**171%**	**18%**
2 Bed	$51,631	$38,507	**131%**	**46%**
3 Bed	$102,901	$47,095	**138%**	**142%**

Reduced HOA Cost

Heating expenses constitute a significant portion of a building's HOA costs, averaging around $1,600 per apartment annually. Moreover, buildings may incur hundreds of thousands in expenses for engineers to manage boilers, fines, and occasionally, exorbitant repair and temporary boiler costs.

With STØNE, these expenses plummet to approximately $80 per year! Buildings with reduced HOA fees become more appealing and easier to market. For landlords renting out apartments, lower HOA fees translate to higher profits. With STØNE, it's also possible to rebill building usage back to reach resident based on their usage, reducing the HOA cost of heating to zero.



Additional Amenity Space

Many older buildings were constructed before amenities such as fitness centers, resident lounges, game rooms, and movie theaters became standard expectations. Additionally, the rise of Internet shopping has inundated buildings with hundreds of packages, often leaving residents with limited storage space.

With STØNE, the traditional large boiler room becomes obsolete. Instead, STØNE Power Modules are located outside the building. This frees up significant interior space previously occupied by the boiler and related components. Depending on the size of the space reclaimed, buildings can incorporate new amenities, enhancing their desirability and value.

TØNE

Overview

STØNE is an innovative, inverter-driven air-to-water heat pump designed to replace traditional boilers while offering simultaneous heating and cooling. Its key advantage is its effortless integration with existing piping infrastructure, ensuring a smooth and efficient transition to STØNE technology.

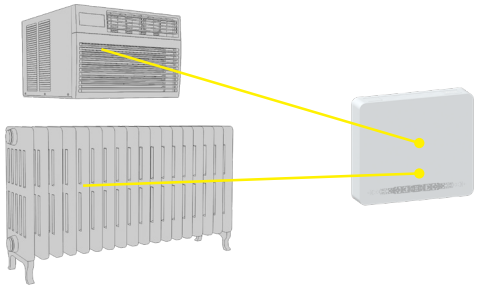
Easy to Deploy

STØNE is the easiest and least disruptive way to upgrade older buildings to state-of-the-art cooling, heating, and domestic hot water. STØNE is comprised of three modules: Power, Hot Water, and Room.

1 Remove the gas/oil boiler, gas/electric hot water tank, radiators, and window air conditioners.

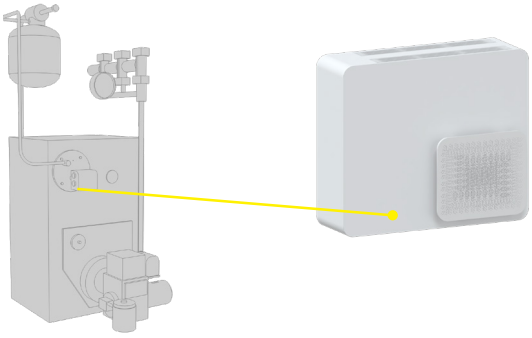
2 Install the STØNE Power, STØNE, Hot Water, and STØNE Room Modules. The infrastructure stays, only the components change.

3 Enjoy state-of-the-art cooling and heating in every room, gain extra space, save money, and enjoy a better-looking building, inside and out.



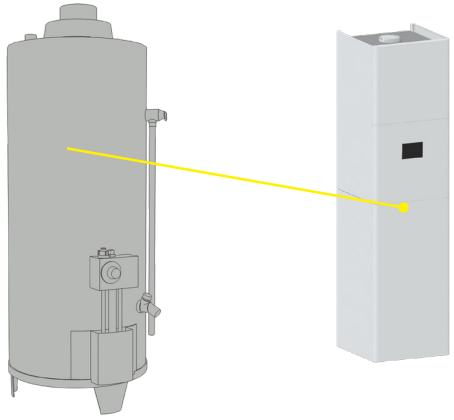
Room Module

These sleek, wall-mounted, paintable consoles replace the radiators and provide each room with quiet, efficient cooling and heating. Room modules are available in 3 sizes.



Power Module

The Power Module replaces the boiler and contains a state-of-the-art heat pump that generates hot and cold water. This water flows through the existing radiator pipes, powering the Room and optional Hot Water Modules. Power Modules can be combined to provide continuous hot water.



Hot Water Module

This optional module replaces hot water heaters and provides continuous hot water and can feed a huge hot water storage tank.

10-Year Limited Warranty

When you purchase a HVAC system, you expect it to last a long time without breaking down. We built STØNE to last and stand behind it with a 10-year limited warranty.

This warranty covers parts and labor for 3 years,. plus 7 years for parts only.

The compressor is covered for a total of ten years for parts and labor.

Warranty subject to terms and conditions.

5-Year Comprehensive Warranty

The 5-year comprehensive covers parts and labor for a full five years from purchase. This warranty will cost an additional $250 per unit.

10-Year Comprehensive Warranty

The 10-year comprehensive covers parts and labor for a full ten years from purchase. This warranty will cost an additional $550 per unit. Nobody in the industry offers a ten year parts and labor extended warranty option.

15-Year Comprehensive Warranty

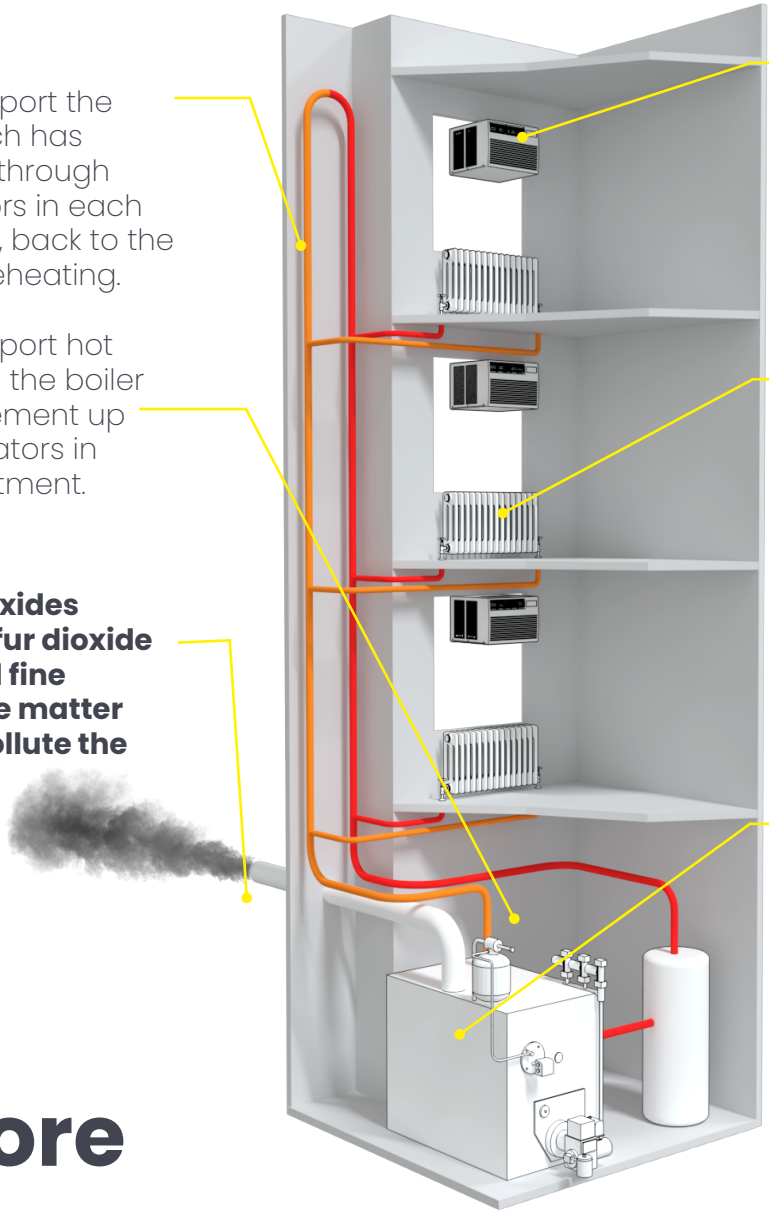
The 15-year comprehensive covers parts and labor for a full fifteen years from purchase. This warranty will cost an additional $950 per unit. This warranty is unheard of in the heat pump industry. Our confidence in the quality and durability of our systems makes this warranty possible.

How it Works

Pipes transport the water, which has circulated through the radiators in each apartment, back to the boiler for reheating.

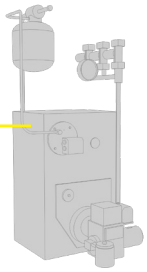
Pipes transport hot water from the boiler in the basement up to the radiators in each apartment.

Nitrogen oxides (NOx), sulfur dioxide (SO2), and fine particulate matter (PM2.5) pollute the air.



Window air conditioners operate inefficiently while obstructing the windows.

Radiators heat each room without providing any control over the temperature.



Boilers heat each room without providing any control over the temperature.

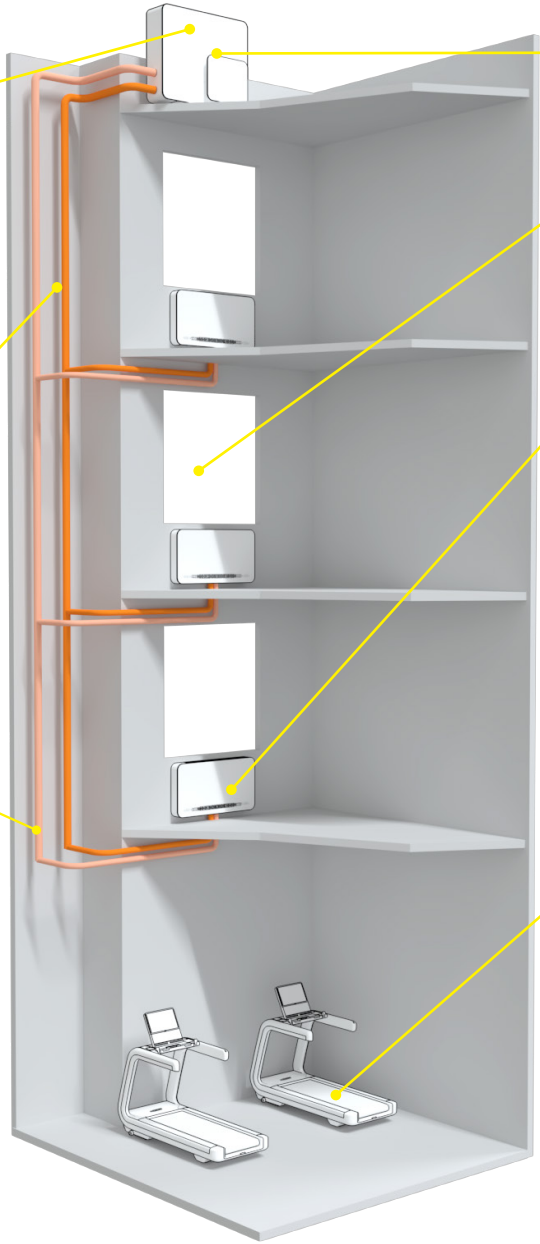
Before

STØNE heat pump replaces the boiler in the basement and utilizes the same pipes that were previously used by the boiler.

The same pipes transport room temperature water from the STØNE unit on the roof down to the room modules in each apartment.

The same pipes transport the water, which has circulated through the room modules in each apartment, back to STØNE for reheating or cooling.

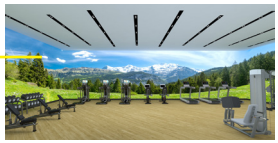
After



Zero pollution from the heat pump.

Windows are free and clear allowing in air and light.

Room modules provide heating and cooling to each room, replacing the window air conditioner and radiator.



An amenity area replaces the space in the basement vacated by the boiler, which is no longer needed.

Who Pays What

The STØNE system consists of two main components: the Power Module and the Room Modules.

The Power Module regulates the water temperature circulating through the radiator pipes, which in turn controls the room temperature via the condenser in the Room Module. Costs are divided between these two components, with a larger portion allocated to the resident.

Powered by electricity provided by the building, the Power Module's workload increases as more apartments activate their Room Modules for heating or cooling, resulting in higher electricity consumption. However, thanks to its inverter-based design, the Power Module achieves remarkable efficiency, especially when operating at lower capacities.

In contrast, Room Modules are individually connected to each apartment's power supply, with residents responsible for the associated electricity costs. This arrangement encourages residents to use scheduling features to maximize efficiency, leading to more efficient billing practices and savings for all occupants.

Finally, in order to facilitate equitable billing of the Power Module, STØNE includes a monitoring feature which tracks the amount of usage by resident relative the Power Module in order to facilitate re-billing each resident for their related costs of the Power Module operation.

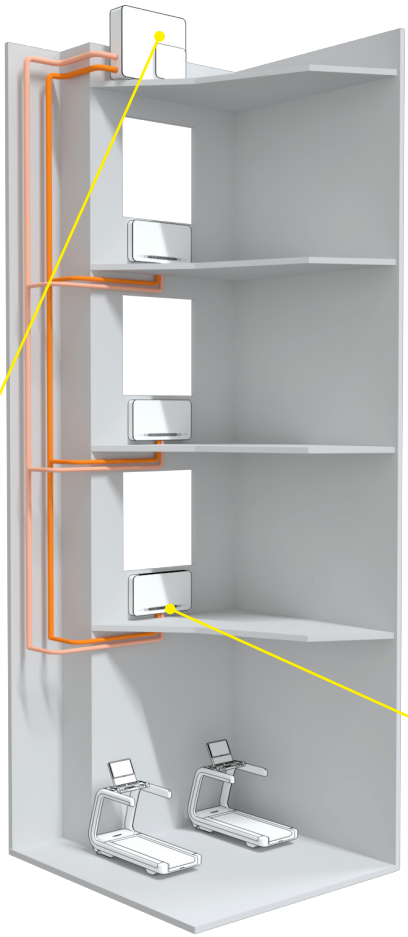
Operating Cost Breakdown

	Building Cost			Resident
System Capacity	100%	70%	50%	100%
Cooling	$0.076	$0.076	$0.075	$.085
Heating	$0.068	$0.058	$0.055	$.091

Power Module

This is connected to the building power system and cost between $0.055 and $0.076 per hour depending on heating or cooling and building capacity.

These costs can be billed back to each resident based on their actual usage.



Room Module

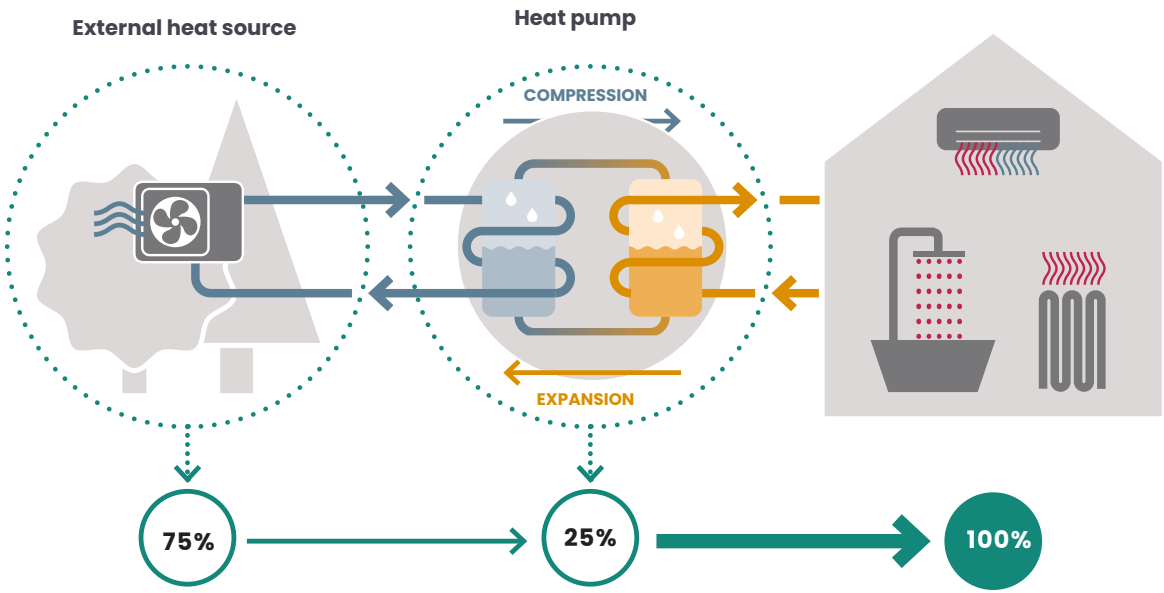
This is connected to the apartment power system and cost between $0.085 and $0.091 per hour depending on heating or cooling.

What Is a Heat Pump

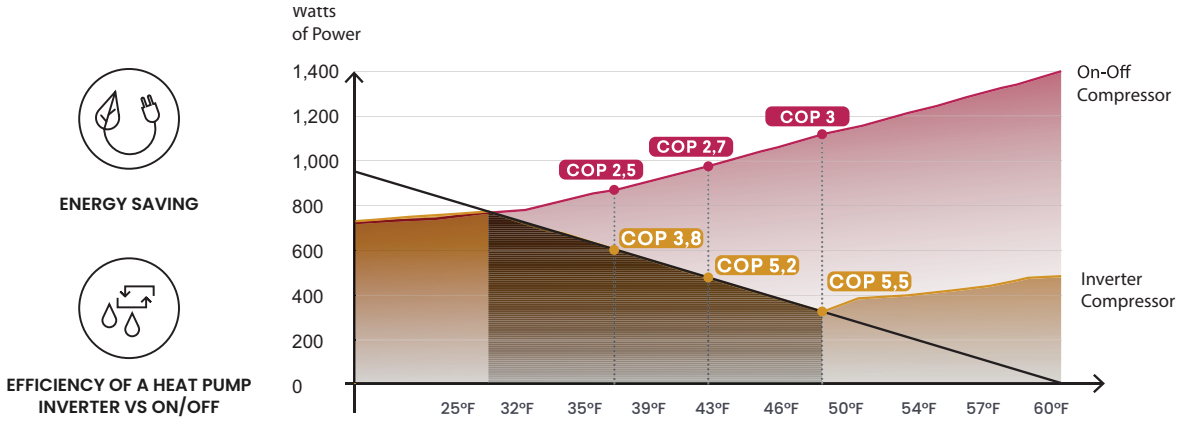
A refrigerator doesn't cool, rather, it extracts heat from a low-temperature environment and transfers it to a warmer setting.

Similarly, a heat pump operates on the same principle, drawing heat from a cooler outdoor environment and transferring it to a warmer indoor space. This cycle can be reversed in the summer to cool the indoor environment by releasing heat outside.

This process harnesses existing thermal energy in nature. Although a heat pump requires electricity for activation, it generates heat by absorbing energy from the surrounding outdoor air.



Inverters Use 35% Less Power



The home's requirement for heat is most significant at the design temperature, gradually decreasing as the external temperature increases.

An inverter compressor-equipped heat pump adjusts the power supply in response to the home's needs. The supplied power decreases as the outside temperature increases, leading to higher efficiency.

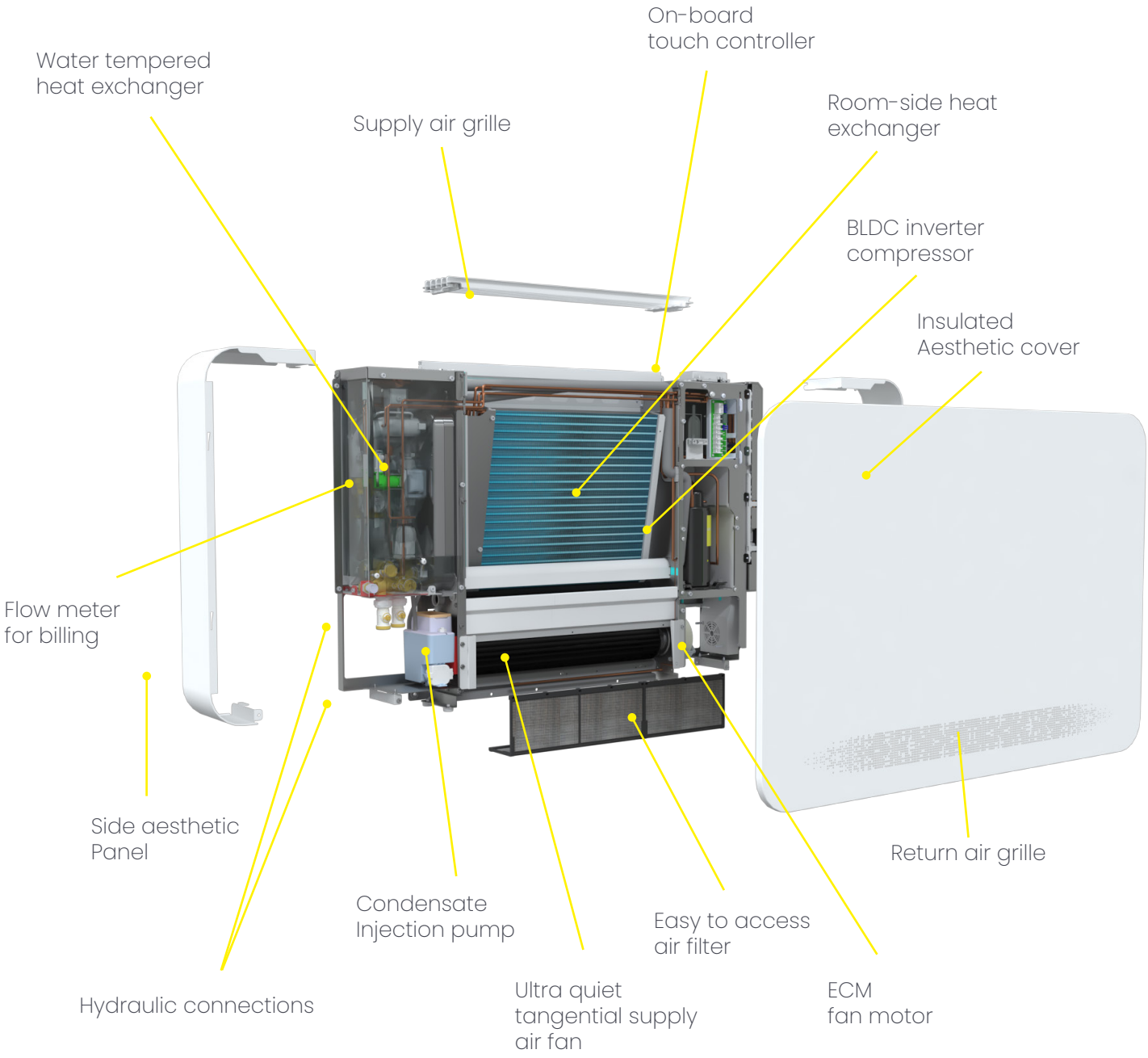
On the other hand, a heat pump with an on/off compressor operates at 100%, generating more power as the outside temperature rises, contrary to the building's diminishing requirements. This mode causes the compressor to frequently start and stop to meet the load, significantly reducing efficiency.

STØNE's inverter heat pump ensures substantial energy savings in heating, cooling, and domestic hot water production due to its high COP. The heating costs for the entire winter season can be 50%-85% lower compared to a boiler.


STØNE

Room Modules & Controls

Each room's cumbersome radiator is substituted with sleek and modern STØNE Room Modules, meticulously engineered to quietly and efficiently regulate the temperature, provide cooling, and reduce humidity. With STØNE, precise temperature management is achievable in every room of every apartment. Users enjoy the freedom to set individual rooms to heating, cooling, or off modes simultaneously, ensuring personalized comfort throughout the living space. Additionally, the all-metal cabinet of the room module can be effortlessly painted in any color to seamlessly blend in with the decor.


Water tempered
heat exchanger
On-board
touch controller
Supply air grille
Room-side heat
exchanger
BLDC inverter
compressor
Insulated
Aesthetic cover
Flow meter
for billing
Side aesthetic
Panel
Condensate
Injection pump
Easy to access
air filter
Return air grille
Hydraulic connections
Ultra quiet
tangential supply
air fan
ECM
fan motor

Room Modules

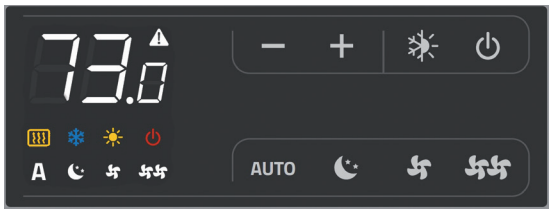


Each room's bulky radiator is replaced with stylish and sleek STØNE Room Modules, designed to quietly and effectively heat, cool, and dehumidify each room. STØNE enables precise temperature control in each room of every apartment. Users have the flexibility to set different rooms to heating, cooling, or off modes simultaneously, ensuring personalized comfort throughout the living space. The all-metal cabinet of the room module can easily painted in any color to blend in with any decor.

	Unit	Small	Medium	Large
Cooling	Btu/H	4,100	5,800	10,200
Heating		4,800	7,800	12,300
Compressor			Rotary BLDC inverter	
Airflow	CFM	94/61/85/29	194/173/120/59	294/258/180/103
Sound	Db(A	48/40/33/28	50/42/34/29	52/44/35/31
Dimensions H x L x D	In	25.3 x 30.5 x 5.7	25.3 x 38.4 x 5.7	25.3 x 48.3 x 5.7
Weight	Lb	77	88	99
Connection	In		3/4 Water Line	
Power Cooling/Heating	W	200/180	310/340	470/510
Voltage	V	115 or 220	115 or 220	115 or 220

Onboard Touch Controller

The integrated touch controller offers easy-to-use controls of mode, fan speed, set point and a dimmable screen for nighttime on all STØNE console units. This controller is included at no extra charge.



Key Features

- Touch controller
- Always-on display
- Option to dim when the room gets dark

Wall-Mounted Touch Controller

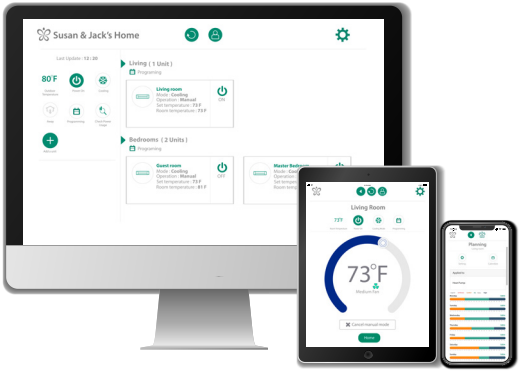
The wall-mounted touch controller is simple and easy to use. The sleek design and low profile easily blend into any decor. The LED display dims after 15 seconds, making it ideal for any room, especially a bedroom.

Key Features

- Surface Wall Mounted
- Sleek touch controller
- Always-on back-lit LED dims after 15 seconds of inactivity

Android / iOS / PC App

The Ephoca app for Android, iOS, and PC devices enables full functionality of all modes, fan speed, temperature setting, and a comprehensive seven-day programmable timer when connected to the Internet. The app also allows groups to control multiple units as a single unit, simplifying operations. Multiple users can be connected to each STØNE unit.

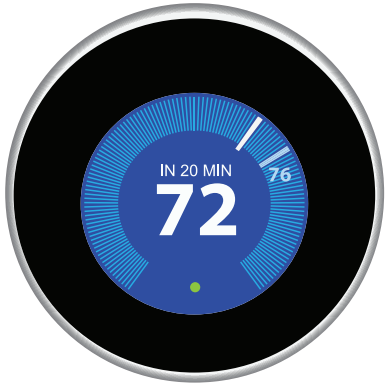


Key Features

- Easy and intuitive use
- Secure

Third Party Gateway

The third-party gateway offers the ability to control STØNE fan coils with any standard or smart thermostat.



Key Features

- Enables all the benefits of a smart thermostat such as Nest™, Ecobee™ etc for timers, controls, etc.
- Included 24V power supply


STØNE

Power Module

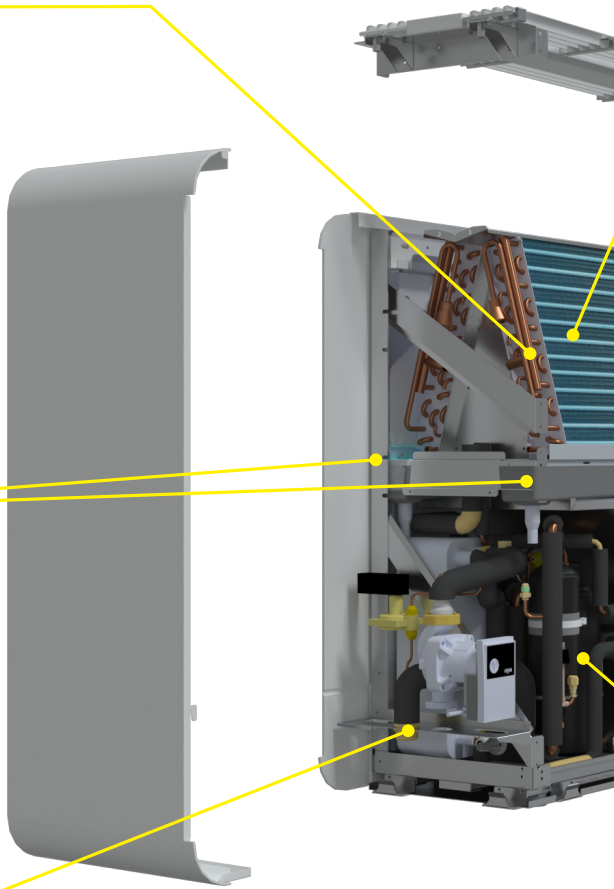
The power module acts as the cornerstone of the STØNE system, guaranteeing a continuous provision of room temperature water within the loop throughout the year. These modules provide flexibility, as they can be conveniently placed on rooftops, in yards, or on walls. Their modular design facilitates effortless relocation to rooftops and easy transportation via elevator. Moreover, the inverter compressor operates quietly and delivers outstanding efficiency.

Powerful and Efficient

The sleek STØNE Power Module is installed outside the building, typically on the roof, so all that is visible is the clean front. Each Power Module can provide up to 154,000 BTU of heat and cooling.

Heat Exchanger Coils

The heat exchange coils within the unit provide versatile installation choices—positioned against a wall or fully recessed. Sustaining constant efficiency over time, these coils stay free from dirt. Enhanced defrosting speed is achieved by utilizing generated heat for ice melting rather than dispersing it into the outside air. Further, the coils incorporate hydrophilic fins and an under-cooling circuit, effectively reducing defrosting cycles and minimizing ice build-up on the base.



Two Condensate Trays

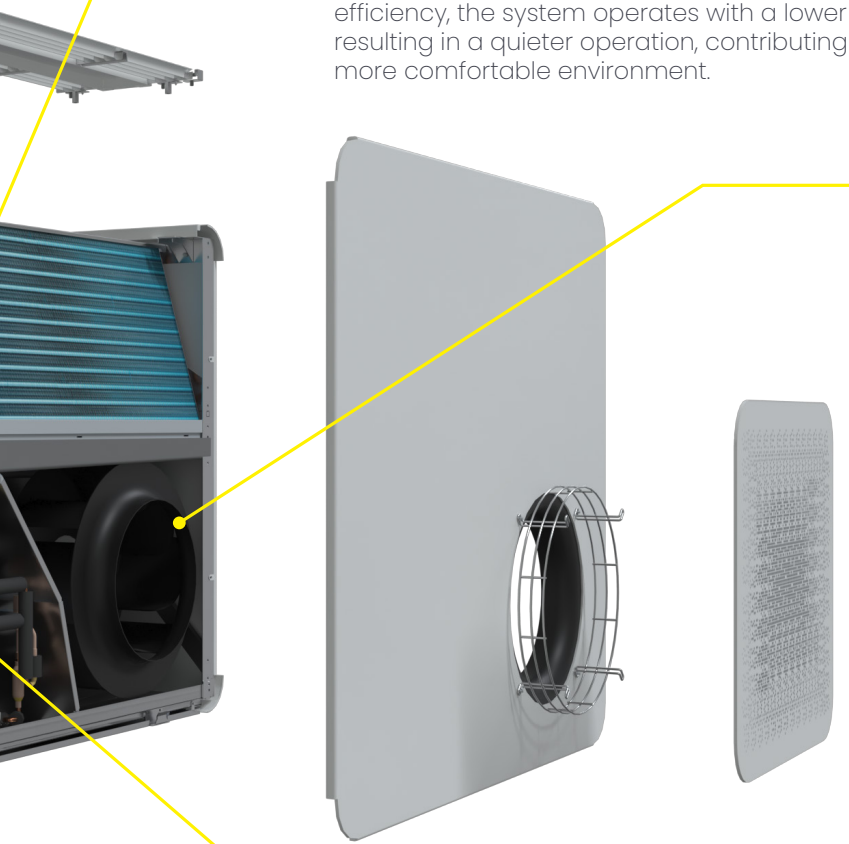
The coil is separated from the tray to facilitate rapid and effective condensate discharge. The steep incline of the trays prevents icing by ensuring swift drainage of condensate. The condensate trays discharge outlet, positioned 18 inches above the ground within the hot compressor compartment, further promotes efficient drainage.

Minimal Loss

With insulated water lines carrying the cooling and heating capacity, there is minimal capacity loss allowing for unlimited line length runs to any hydronic fan coil. This method of delivering rated capacity is more efficient than typical refrigerant based systems.

Inverted “V” Heat Exchanger Coils

The design allows for a larger heat exchange surface, ensuring improved efficiency in the transfer of heat, as well as an even distribution of air across the entire surface, promoting consistency in performance. Additionally, there is a notable reduction in pressure loss, enhancing the overall effectiveness of the system. Despite maintaining the same level of efficiency, the system operates with a lower air flow, resulting in a quieter operation, contributing to a more comfortable environment.

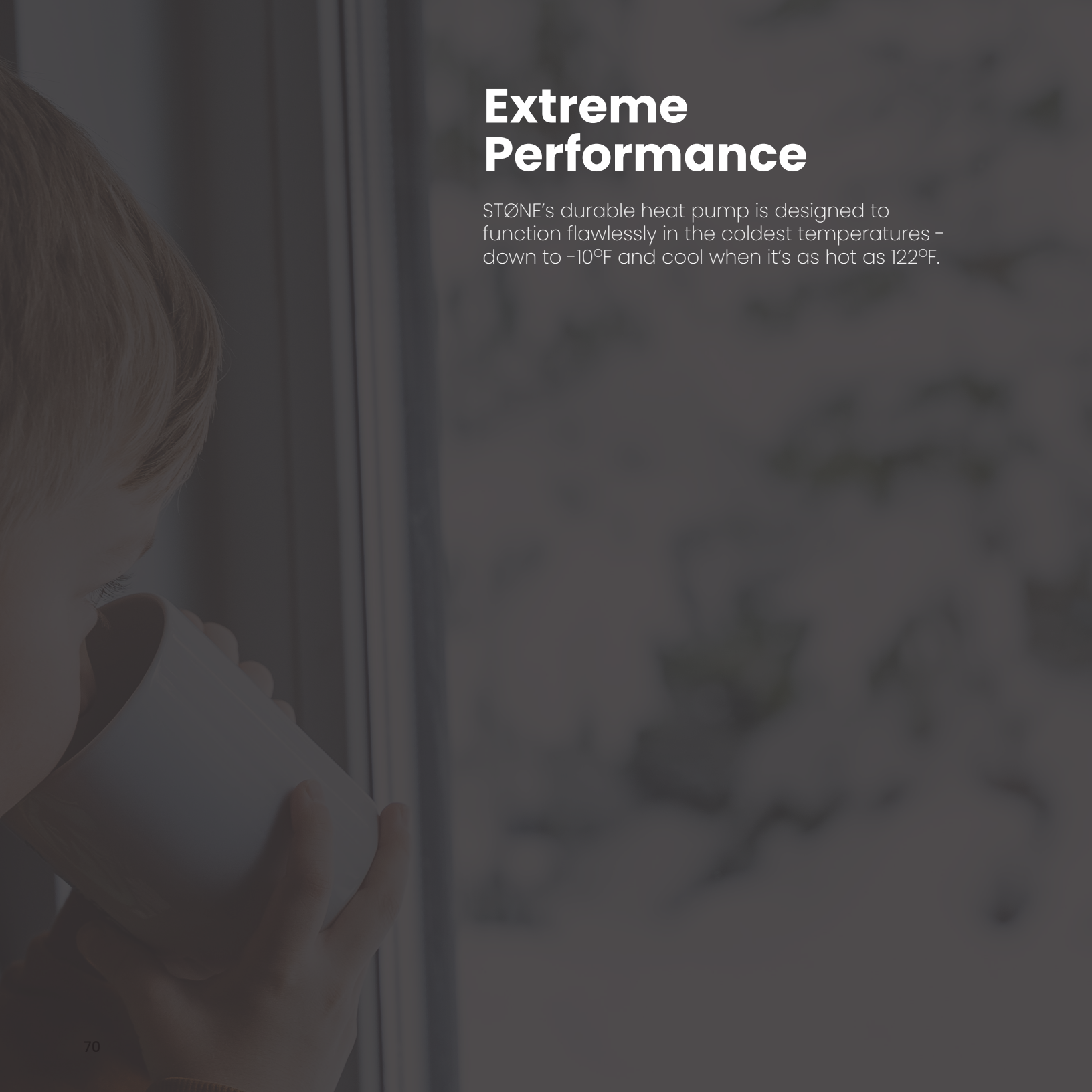


ECM Centrifugal Fan

The extraordinarily powerful yet efficient ECM fan swiftly draws air through the coils, adjusting its speed to meet demand, thereby enhancing the systems overall performance.

Twin Rotary BLDC Inverter Compressor

The twin rotary BLDC inverter compressor provides improved energy efficiency, variable speed operation, quiet performance, extended lifespan, precise temperature control, enhanced dehumidification, and adaptability to various applications, all contributing to a more efficient and comfortable HVAC system.



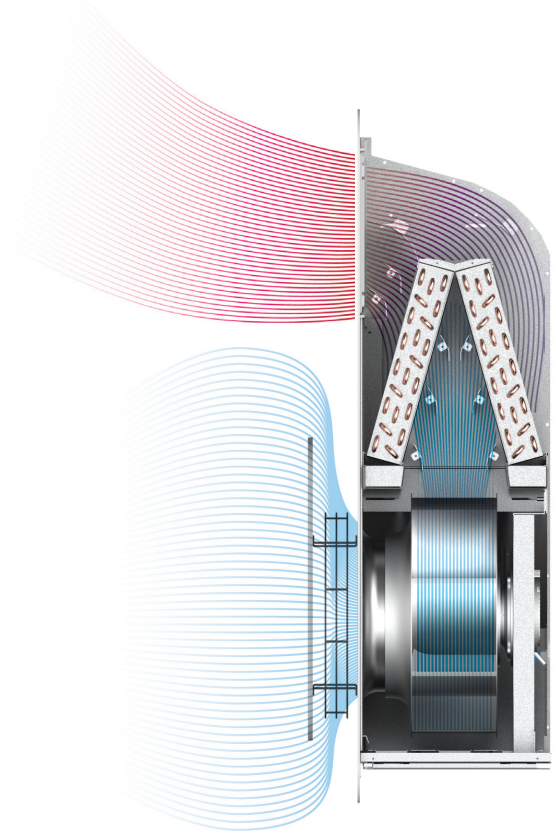
Extreme Performance

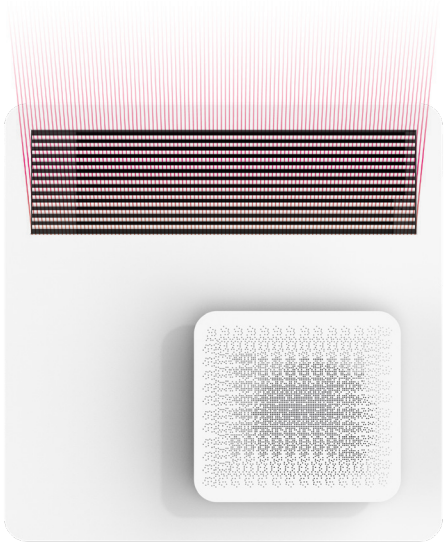
STØNE's durable heat pump is designed to function flawlessly in the coldest temperatures - down to -10°F and cool when it's as hot as 122°F.

Quiet Operation

STØNE's unique design enables a quiet outdoor operation. This is due to many innovative design features:

- Air extraction from the front.
- Condenser fan sits inside the structure, which pulls in air from the front of the unit and directs the air flow up towards the heat exchanger coils.
- The noise generated by the fan is low and absorbed within the structure.
- The heat exchanger coils dampen the noise generated by the air flow.
- With vertical or horizontal discharge the airflow and the resulting noise can be directed towards a spot where it is less bothersome while avoiding air recirculation.





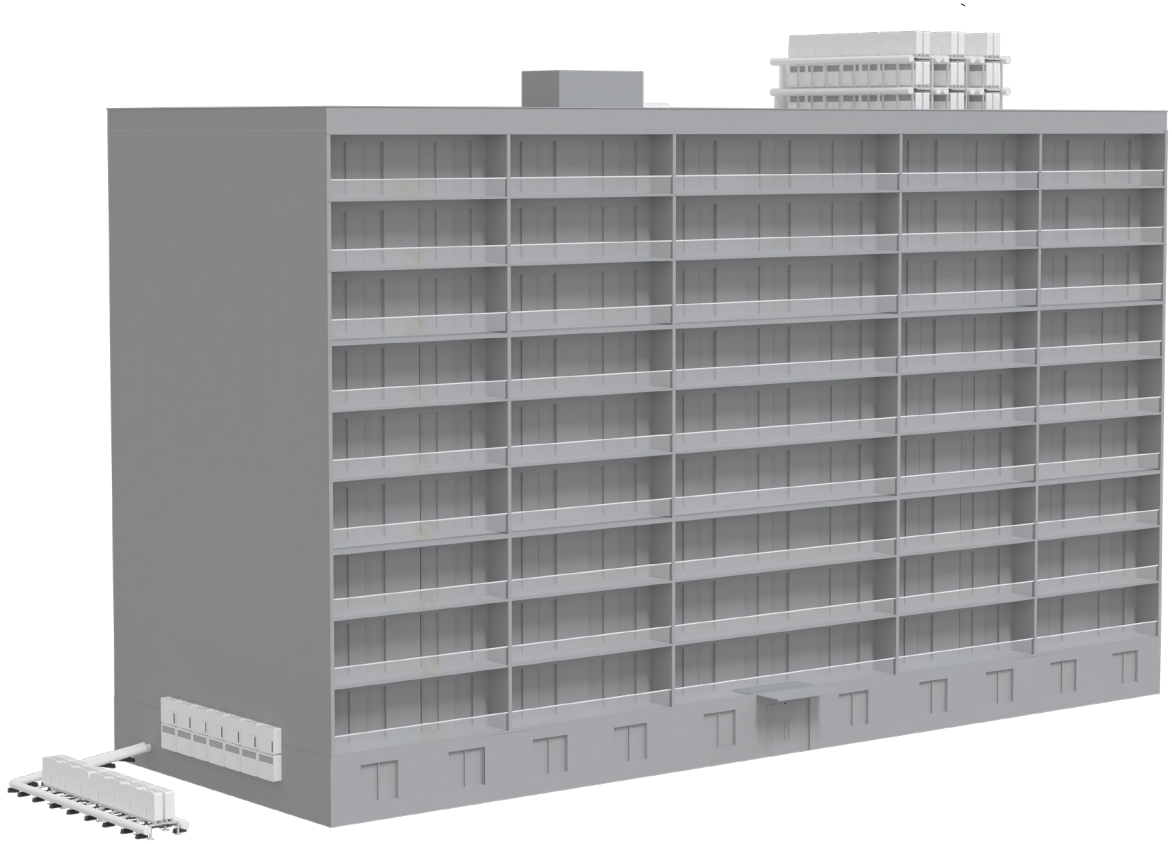
Exhaust

Supply

Easy to Place

STØNE outdoor units showcase flexibility in mounting options, such as wall hanging, recessing into the wall, and floor standing, as well as venting choices like top or side discharge. This adaptability accommodates diverse installation scenarios, including wall, rooftop, ground placement, or in grouped configurations. The units' minimal clearance requirements permit them to be positioned in close proximity to each other.

STØNE Power Modules can be installed in groups to enable larger capacities. STØNE Power Module can be floor-mounted or wall-mounted. Group units on a wall, on the ground, or on a rooftop. Thanks to flexible design with top and side discharge options, units can be stacked to save floor space.



Technical Data

Heating 47°F		
Maximum Capacity	Btu/H	76,701
Nominal Capacity	Btu/H	66,017
Power	Watts	2,960
Efficiency	COP	6.54

Heating 5°F		
Maximum Capacity	Btu/H	32,243
Power	W	3,180
Efficiency	COP	2.98

Heating 13°F		
Maximum Capacity	Btu/H	36,576
Power	W	3,250
Efficiency	COP	3.3

Cooling		
Maximum Capacity	Btu/H	78,544
Nominal Capacity	Btu/H	54,695
Power	W	1,810
Efficiency	EER	30.22

Domestic Hot Water - Not Included In System		
Continuous Flow	GPM	2.5
Equivalent Tank Capacity	Gal	64
Equivalent Tank Recovery Time	Min	14

Hydraulic		
Nominal Flow Rate In Heating	GPM	41
Nominal Flow Rate In Cooling	GPM	33
Available Pressure Primary Circuit	Ft H2o	19
Diameter Of Hydraulic Fittings	In	1
Expansion Vessel Capacity	Gal	1.6
Minimum System Water Content	Gal	13.2

Refrigeration		
Compressor		
Refrigerant Charge R32	Lb	8.36

Sound		
Outdoor Unit Sound Pressure	dB(A)	51
Sound Pressure Outdoor Unit	dB(A)	54

Electrical		
Power Supply	V/Ph/Hz	
Max Power Input	W	7,300
Max Current Absorbed	A	34.5
Degree Of Protection Outdoor Unit		IP4

Dimensions		
Size	in	56 W x 56 H x 16D
Weight	Lb	306

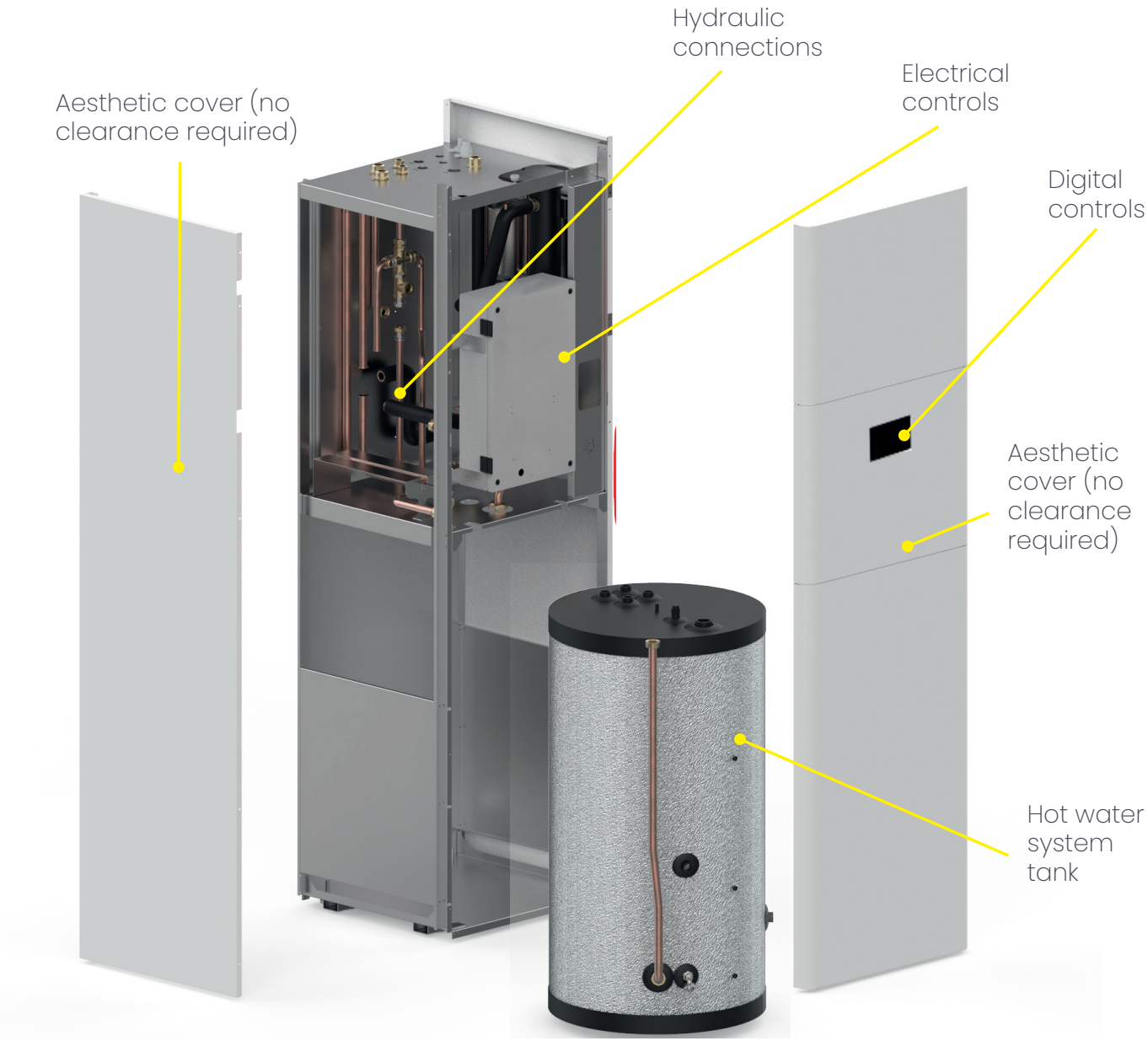
1. Heating at 47°F based on In/Out. Water 70°F/85°F; Outside air 47°F; R.H. 85%
2. Heating at 5°F In/Out. Water 70°F/85°F; Outside air 5°F
3. Cooling In/Out. Water 85°F/70°F; Outside air 95°F
4. Sound pressure at a distance of 40 inches in an open field with the compressor in 50% compressor capacity.
5. This model has the ability to interface with a hot water heat pump; however, this component is not included.
6. Continuous flow is based on shower water temp of 105°F with cold water entering at 10°F, and using highest level of efficiency.
7. STØNE 's advanced domestic hot water system operates by directing cold water through a serpentine pipe within the preparation tank, where it undergoes instant heating. This process mirrors the functionality of an on-demand or tankless hot water system. The equivalent capacity value is supplied exclusively for comparative purposes, offering a reference point for comparison with a conventional hot water tank.
8. The equivalent recovery time is the duration it takes for the STØNE system to replenish the water utilized for heating in the holding tank, ensuring the system can continue supplying hot water. This metric proves valuable when comparing it to the time required for a standard gas or electric hot water tank to recover.

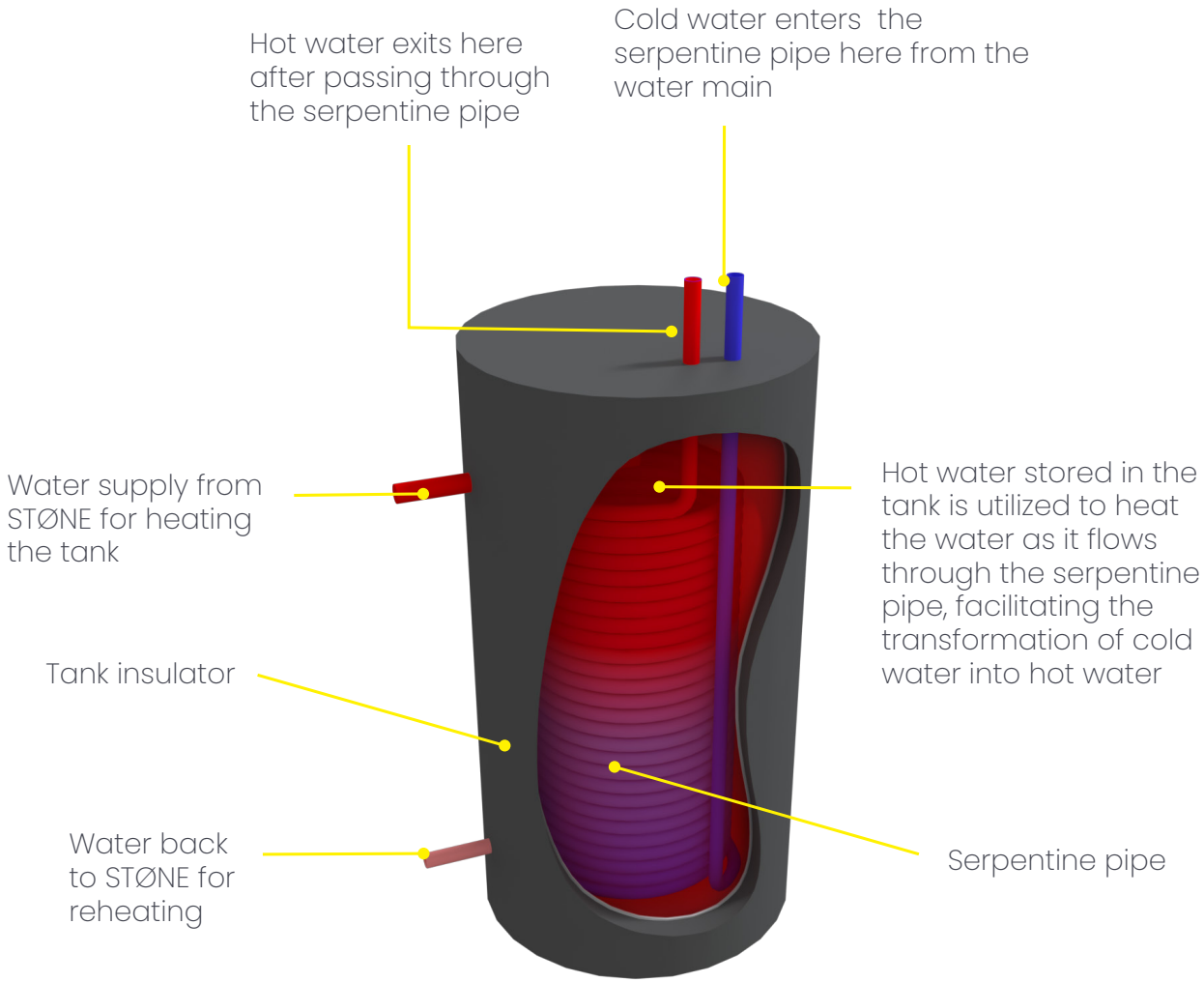

STØNE

Hot Water Module

The hot water module facilitates continuous hot water supply for the building and can be integrated with water tanks to ensure uninterrupted and limitless hot water availability.

Hot Water Module




Hot water exits here after passing through the serpentine pipe
Cold water enters the serpentine pipe here from the water main
Water supply from STØNE for heating the tank
Hot water stored in the tank is utilized to heat the water as it flows through the serpentine pipe, facilitating the transformation of cold water into hot water
Tank insulator
Water back to STØNE for reheating
Serpentine pipe

Enjoy Continuous Hot Water

STØNE ensures a continuous supply of domestic hot water, eliminating the inconvenience of waiting for a hot water tank to refill and minimizing energy and resource wastage. This is achieved through an innovative system, where a relatively small tank contains extremely hot water, allowing cold water to flow through a serpentine-shaped pipe system for instantaneous heating. This process is akin to tankless systems, where water is instantly heated as it passes through an extremely hot gas or electrically heated pipe.

In contrast to traditional hot water tanks that consume significant space and have limited hot water capacity determined by tank size, STØNE addresses these challenges. Traditional systems often necessitate multiple large tanks for large quantities of hot water, resulting in energy waste as these tanks are continuously kept hot, even during brief periods of water heating.

With STØNE, only a compact tank needs to be heated, promoting efficiency and resource conservation. Additionally, the space-saving STØNE cabinet can be conveniently placed anywhere within a home, whether inside a cabinet or a small closet, without specific clearances required.


STØNE

What Does It Cost?

The STØNE system can be acquired as individual components and installed by a contractor of your choice, or Ephoca can coordinate the installation and provide a turnkey solution. Generous rebates are available and guaranteed by Ephoca.

Components

There are 2 components to the STØNE system, an Outdoor Power Module and Room Modules.

Power Module

List price $16,380

Room Modules

Small - 4700 BTU - $3,680

Med - 7,800 BTU - $3,830

Large - 12,300 BTU - $4,318

Huge rebates & Tax Credits

NY Clean Heat Program from ConEd

This program is open to buildings with at least 5 dwelling units and can cover up to 50% of the total installed cost or $1,000,000, whichever is lower.

IRS Tax credit up to $2,000

Through the IRS's Energy Efficient Home Improvement Credit, homeowners can receive a $2,000 tax credit for the installation of electric heat pump systems.

Low Carbon Pathways from NYSERDA

This program is in addition to the NY Clean Heat Program from ConEd and offers between $4,000 and $5,000 per apartment.

We work with various consultants who can advise you on what rebates apply as well as handle the entire process for you.

Our Turnkey Program

1 **Planning**

We will review the existing building infrastructure and create a plan to convert the building to STØNE.

2 **Rebates**

We work with various consultants that can apply and deal with the entire rebate process.

3 **Permits**

We will obtain the required permits for the upgrade.

4 **Financing**

We can work with you and our partners to obtain favorable finance terms.

5 **Deployment**

We will coordinate the installation of the system.

6 **Training**

We will train your maintenance staff and residents how to use the system.

7 **Maintenance**

We can provide an ongoing maintenance contract to keep the system in optimum performance.

Our turnkey pricing solution delivers a completed installation. All you need to do is sign. The pricing below is **all inclusive and before any rebates and discounts:**

	Small	Avg	Large
Studio	$11,218	$18,006	$19,006
1 Bedroom	$29,224	$37,727	$40,442
2 Bedroom	$38,727	$47,230	$49,945
3 Bedroom	$48,230	$56,733	$61,163
4 Bedroom	$57,733	$66,236	$70,666
5 Bedroom	$67,236	$75,739	$80,169
6 Bedroom	$76,739	$85,242	$89,672

ephoca

Who is Ephoca

Ephoca is a pioneering force in the heat pump industry, known for its innovative solutions. Established in Italy in 1994, Ephoca's systems are deployed globally, serving diverse sectors such as luxury hotels, office buildings, residential complexes, and even historic landmarks like the Colosseum in Rome. We are now proud to be part of the Panasonic family.


PUNTO DI

Overview

The name

Ephoca is pronounced Epic-ah. Think of epic and ah \'e-pək ä\.

Our name defines a new period of heat pumps which are compact, efficient and require no outdoor units. Ephoca is changing the way of HVAC in homes. We like to think of our units as epic as well.

ep·och | \ 'e-pək

Definition of *ephoc*

1 a : an event or a time marked by an event that begins a new period or development.

One symbol with many meanings

The stylized butterfly logo represents rebirth and transformation, emerging from a chrysalis to fly free on the wings of innovation. The butterfly is the synthesis of the natural elements we measure ourselves by every day—the air, water, and land of Trentino, where we have our roots.

Additionally, the logo refers to an important historical icon: Leonardo da Vinci's Vitruvian Man. Man is the measure of all things. The synthesis of the circle and the square. The union of art and science.

These ideas represent what makes our company unique: the bold fusion of science and creativity.

ephoca®

Global footprint

Global footprint

Our products are available in 36 countries on five continents and are synonymous with innovation and the highest quality from Korea to Russia, Chile to China. Our global footprint means our products are used and tested in all types of environments and climates—and have proven to be reliable and sturdy all over the world. When the Colosseum in Rome needed discreet air conditioning with no outdoor unit, they chose our system. To watch some case studies, scan or click the QR code on the right.

Ethos

Grow through innovation

In 1994, Oreste Bottaro envisioned an air conditioning solution that wouldn't mar the exteriors of Italy's beautiful buildings. This led to the development of the double duct system, which utilizes one duct to bring in outside air to cool the condenser and another to expel hot air from the building. This revolutionary design made air conditioners nearly invisible and significantly more efficient, with only two small grilles visible on the building's facade.

Today, this innovation is embraced by fine hotels, residential and commercial facilities, and villas in 36 countries, providing efficient cooling and heating solutions. With over 20 years of expertise in climate comfort, our company is committed to growth through innovation. Our dedicated team integrates technical skills, creativity, technology, design, Italian passion, and a global vision to develop cutting-edge heating, ventilation, and air conditioning solutions.

Our mission revolves around achieving optimal energy efficiency and performance. Scan or click the QR code below to watch a short film detailing how we developed a heat pump featuring advanced R290 technology.

- **Commitment**
  We are committed to improving the well-being of people, wherever they are staying. Our commitment to the environment is to reduce consumption, increase efficiency, and promote sustainable development.
- **Experience**
  We are experts in our work and love to translate our experience into creating innovative and valuable solutions and transferring our skills to our partners.
- **Quality**
  We believe in the quality of reliable products that can thrill the customer, the quality of solutions built to last, and the quality of attentive service that focuses on solving problems.
- **Trust**
  We build trusting relationships with our customers, partners, and suppliers. We are a serious and solid company you can count on every day, no matter what.
- **Accountability**
  We take ownership of our mistakes and go above and beyond to make things right when things go wrong.

Timeline

2004 – The beginnings
Founded by Oreste Bottaro, a visionary creator of patented innovations, the company has always focused on designing and implementing advanced systems dedicated to climate comfort in every season.

2014 – Major growth
Foreign collaborations led to the company's expansion into over 30 countries with a growth path fueled by the continuous generation of new ideas and projects. The adoption of DC inverter technology for fan coils and the launch of HPAC 2.0, the air conditioner without an outdoor unit, drove much of the growth.

2018 – The vision of the future
With the invaluable contribution of ideas from Hakira Nishikawa, a complete vision of the future took shape. We invested in the world of VMC with the acquisition of a company specializing in VMC and an artificial intelligence systems company.

2004 2012 2014 2016 2018

2012 – The turning point
With the arrival of Gianandrea Masserdotti (GAM), the company decided to build its commercial network in Italy and abroad, proposing its solutions both to distribution and industrial partners for international brand collaborations.

2016 – The big leap forward
Sensing the potential of the Controlled Mechanical Ventilation space, we developed our first VMC system. We moved into a new 200,000 sq. ft. facility in Storo, Italy, and built a Research and Development Pavilion, where our team works on future innovations.

■ **2020 - Another revolution**

Not satisfied with linear growth, the company decided to step on the accelerator by deeply renewing all the product lines. The award-winning STØNE was introduced with great fanfare and accolades.

■ **2022 - New product launches and Awards**

Recognizing the unique US market, we start to develop products specifically for the US. This includes a PTAC replacement called Nextac - which wins product of the year award.

2019 **2020** **2021** **2022** **2023**

■ **2019 - USA**

After many years of planning, we opened our USA subsidiary, Ephoca, with plans to open a manufacturing plant and build systems in the United States.

■ **2021 - Preparing for tomorrow**

The poor global economic situation in 2020 did not diminish our determination and ambition. At the end of 2020, we acquired a neighboring industrial complex, allowing for future expansion. We experienced explosive growth throughout 2021, doubling our staff and production. It was a fantastic year. We moved a manufacturing line into the new annex and tripled our warehouse space.

Panasonic

■ **2023- Panasonic partnership**

After years of manufacturing systems for Panasonic and collaborating closely with their team, they acquired a minority share in our company. This partnership prioritizes energy-efficient solutions and innovation, vital for our growth as we access Panasonic's global support.

STØNE

Additional Resources

The STØNE system can be acquired as individual components and installed by a contractor of your choice, or Ephoca can coordinate the installation and provide a turnkey solution. Generous rebates are available and guaranteed by Ephoca.

Inverter Efficiency Studies

“Inverter AC consumes 35% less electricity”

- National Engineering Research and Development (NERD) Centre of Sri Lanka

Comparison of Energy Consumption Between a Standard Air Conditioner and an Inverter Type Air Conditioner in an Office Space

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3616965

“Inverter AC consumes 44% less electricity”

-Energy and Water Research Institute, King Abdulaziz City for Science and Technology

Comparison of energy consumption between non-inverter and inverter-type air conditioner in Saudi Arabia

https://link.springer.com/article/10.1007/s41825-020-00033-y

“Inverter AC consumes 12 - 22.4% less electricity”

- Sunil Kumar Gupta IOP Conference Series

Economics-Based Payback and Life Cycle Cost Savings Assessment of Inverter Type Air Conditioners

https://iopscience.iop.org/article/10.1088/1757-899X/1206/1/012023

“Inverter AC can consume up to 65% less electricity”

- Tambov State Technical University Department of Thermal Power Engineering

Economic Feasibility of an inverter Air Conditioner for Residential Buildings in Iraq

https://www.jmest.org/wp-content/uploads/JMESTN42352846.pdf

“Inverter AC consumes 35% less electricity”

- Department of Architectural Engineering, Pusan National University

Feasibility Study on Variable-Speed Air Conditioner under Hot Climate based on Real-Scale Experiment and Energy Simulation

https://pdfs.semanticscholar.org/90ff/a6fcaeba65d99cc3f18689d993f61341208e.pdf

“Inverter AC consumes between 21 - 25% less electricity”

- International Journal of Current Engineering and Technology

A Review on DC Inverter Operated Air Conditioner

https://inpressco.com/wp-content/uploads/2017/06/Paper72306-309.pdf

Radiator Efficiency Studies

”Local heat losses range between 5.7 - 26.9 % from total heat losses”

- Technical University of Cluj-Napoca, Faculty Building Services Engineering

Calculation of Heat Loss Through The Pipes of The Interior Central
https://intapi.sciendo.com/pdf/10.1515/jaes-2015-0018

”Pipe heat losses in low-energy or nZEB apartment buildings can be more than 10% of the entire primary energy consumption”

- nZEB Research Group, Tallinn University of Technology

Heat Loss Due to Domestic Hot Water Pipes
https://www.mdpi.com/1996-1073/14/20/6446

”Losses range from 10% to over 50%”

- Deming Wang

Heat loss along the pipeline and its control measures
https://link.springer.com/article/10.1007/s42452-022-05226-2

”Losses in buildings with district heating is 25%”

- Department of Civil Engineering and Architecture, Tallinn University of Technology

The Influence of heat loss from pipes in an unheated basement on the heating energy consumption of an entire typical apartment building
https://www.e3s-conferences.org/articles/e3sconf/pdf/2020/32/e3sconf_nsb2020_12005.pdf

”An uninsulated piping system would exhibit nearly 34 times higher heat losses than an insulated system”

- VSB - TU of Ostrava, Faculty of Materials Science and Technology, Department of Thermal Engineering

Heat Loss Analysis of Outdoor Piping (Insulated vs Uninsulated)
https://www.matec-conferences.org/articles/matecconf/pdf/2020/24/matecconf_aenmfme2020_03006.pdf

ephoca

With over 20 years of experience in the climate comfort sector, we have a clear goal: growth through innovation. Our team is laser-focused on the conception, development, and production of innovative heating, ventilation, and air conditioning solutions. This mission has developed through bringing together technical skills, creativity, technology, design, Italian passion, and a global vision to achieve the best energy efficiency and performance.

Ephoca is the US subsidiary of Innova SRL - Via 1° Maggio, 8 – 38089 Storo (TN) Italy.

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MADE IN ITALY

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