

# SMARTSOURCE<sup>®</sup> WATER SOURCE HEAT PUMPS

W/LOW-GWP R-32 REFRIGERANT



3-TIER  
HORIZONTAL



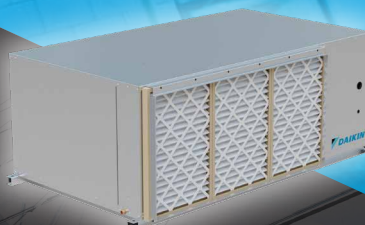
3-TIER  
VERTICAL



VERTICAL  
STACK



LG. CAPACITY  
VERTICAL



LG. CAPACITY  
HORIZONTAL



CONSOLE

- 3-TIER MODELS: WSCH/WSDH/WSMH/WSNH/WSSH/WSH/WSCV/WSDV/WSMV/WSNV/WSSV/WSTV
- VERTICAL STACK MODELS: WSVF/WSVC
- LG. CAPACITY MODELS: WSLV/WSLH
- CONSOLE MODEL: WSRC
- 1/2 TO 25T COOLING



# FUTURE PROOFING BUILDINGS W/SUSTAINABLE COMFORT



In today's world, the demand for energy-efficient and environmentally responsible heating and cooling solutions has never been greater. Daikin Applied is proud to introduce its state-of-the-art water source heat pump systems (WSHPs), now utilizing the innovative low-global warming potential (GWP) R-32 refrigerant. These systems represent a significant advancement in energy efficiency and sustainability, making them some of the most environmentally-friendly HVAC options available for commercial buildings.

Our high-efficiency, self-contained units come in a variety of sizes and configurations, allowing for seamless integration into any space within your building. Each water source heat pump system is designed to respond specifically to the heating or cooling load of the individual zone it serves. This feature ensures optimal comfort levels for occupants while providing building owners with enhanced control over energy consumption and significantly lower seasonal operating costs.

By choosing these advanced technology heat pumps, building owners and managers can achieve significant energy savings, enhance occupant comfort, and promote sustainable practices, making them a smart investment for the future.

## CERTIFICATIONS



\*Models with capacities greater than 135,000 Btu/h are not included in the AHRI/ASHRAE/ISO13256-1 water-to-air and brine-to-air heat pump certification program.

## PERFORMANCE

- Heating and cooling
- ½-25 tons
- 300-12,500 cfm
- R-32 refrigerant
- Up to 23.7 EER

## FEATURES

- > Single or 2-stage compressor
- > EC fan motors with adjustable air flow
- > Smart Dehumidification, precise humidity control
- > MERV-8/MERV-13 filters
- > Energy-saving economizer

## LINKS:

[Product Website](#)

[Case Studies](#)

[Solutions Catalog](#)

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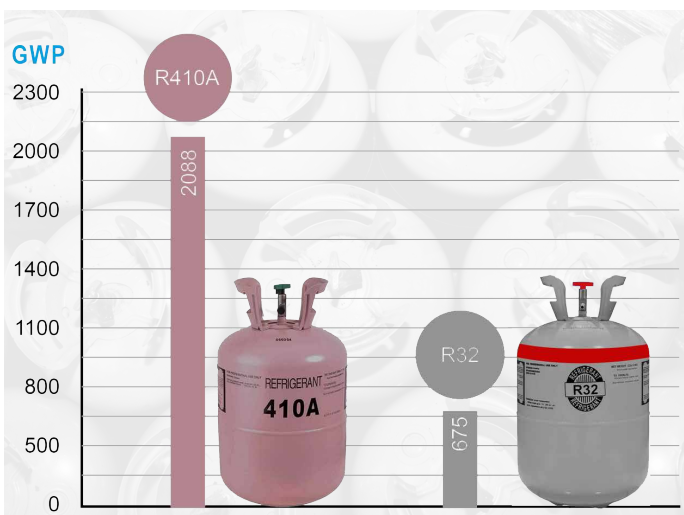
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## Environmentally Friendly

Daikin Applied WSHPs are designed to enhance energy efficiency and reduce environmental impact. By utilizing renewable water sources, they significantly lower greenhouse gas emissions compared to traditional heating and cooling systems. These heat pumps operate on a closed-loop system, recycling water to transfer heat, which minimizes energy consumption. Precise temperature control further reduces energy waste. By promoting sustainable energy use and enhancing indoor air quality, Daikin Applied's WSHPs contribute to greener building practices, supporting global efforts toward energy conservation and climate change mitigation. Overall, they represent a practical solution for eco-conscious heating and cooling.



## Low GWP Refrigerant

With a GWP of 675, R-32 contributes less to global warming potential compared to other refrigerants like R-410A. Because of R-32's excellent thermodynamic performance characteristics, an R-32 system could have up to 40% less charge than R-410A in certain applications, meaning you could reduce refrigerant usage in the equipment and potentially also reduce quantities leaking to the environment.

Being a pure, single-component refrigerant, R-32 can't lose its composition like a blended refrigerant and is well suited to retain its quality over time. It can be topped off and recharged in the field in both liquid and gas phases; because the composition doesn't change, it's easy to clean and reuse on site. R-32 can be reclaimed and recycled with a simple cleaning process, as compared to blends with less stable HFOs that must be distilled to their pure compounds and then remixed.

## Industry-Leading Performance

Daikin Applied's WSHPs, particularly the SmartSource® 3-tier series of Compact, Plus and Premiums units, are engineered to meet the high demands of diverse building applications calling for superior efficiency, noise reduction, and indoor air quality.

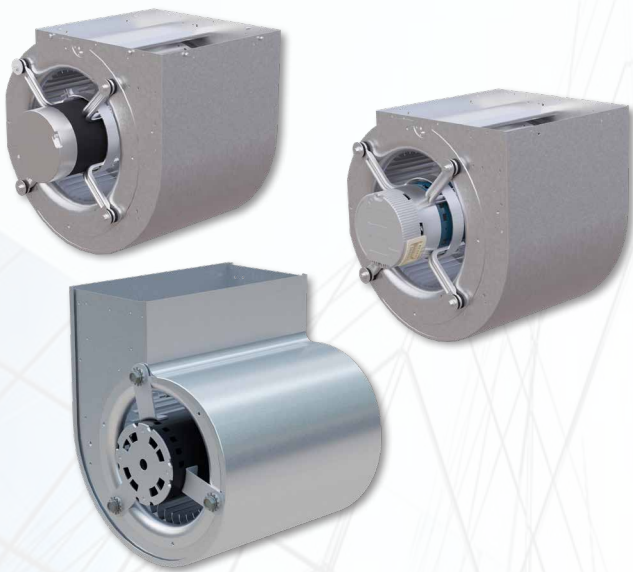
Featuring Energy Efficiency Ratios (EERs) that significantly surpass ASHRAE 90.1 standards, SmartSource WSHPs are designed to lower energy consumption while maintaining optimal thermal comfort. This efficiency aligns perfectly with sustainable building practices, making them an ideal choice for LEED® certified projects and other energy-saving initiatives. By incorporating Daikin water source heat pumps, building owners not only contribute to reducing their carbon footprint but also benefit from potential rebate opportunities designed to encourage energy-efficient upgrades.

UP TO  
**23.7**  
FULL-LOAD  
EER





## ENERGY SAVING WSHP DESIGN THAT LOWERS OPERATING COSTS



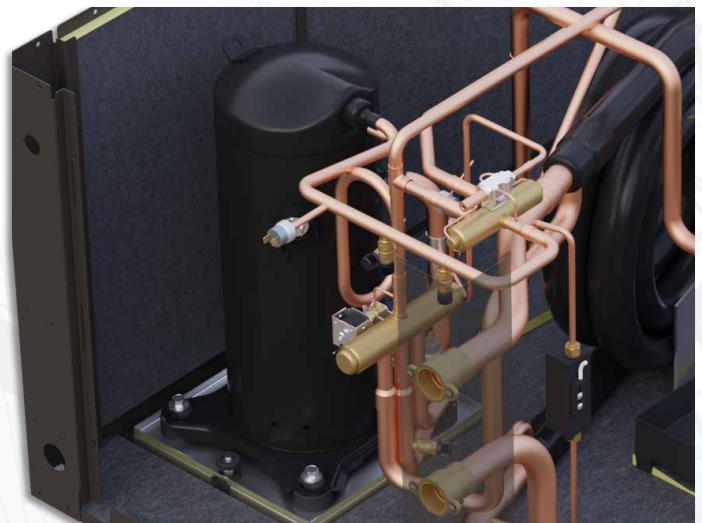
### EC or PSC Fan Motors

Electronically commutated (EC) or permanent split capacitor (PSC) fan motors enhance energy efficiency, leading to reduced operational costs and lower environmental impact. EC motors, in particular, offer precise speed control, allowing for better adaptation to varying load conditions, which improves overall system performance and comfort levels.

Additionally, these motors have a long lifespan and require less maintenance compared to traditional motors, contributing to overall reliability and reduced downtime. The integration of such advanced technologies aligns with the growing demand for sustainable HVAC solutions, meeting regulatory standards and consumer preferences for energy-efficient systems.

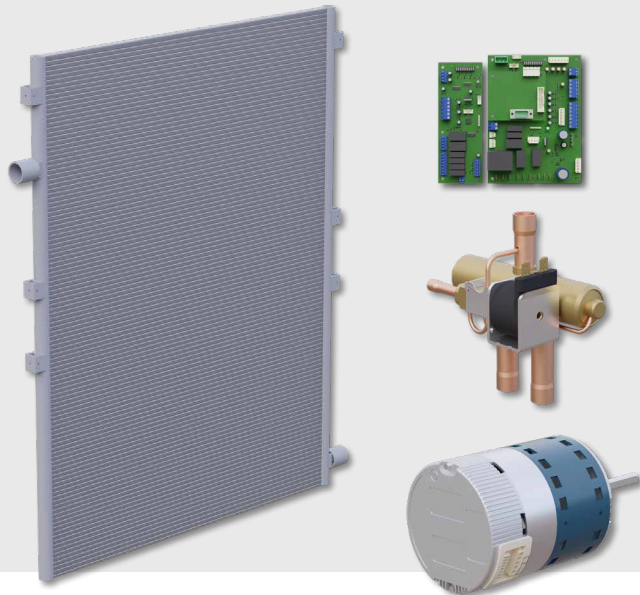
### 2-Stage Compressors

Daikin's SmartSource 3-tier WSHP offering is the only in the industry to offer 2-stage compressors throughout its 3-tier lineup, providing the perfect balance of efficiency and affordability. SmartSource's innovative 2-stage design precisely matches heating and cooling demands, delivering superior part-load efficiency – where systems operate most of the time. This translates to significant energy savings without the premium cost of more complex, continuously variable systems. You get the benefit of optimized performance and lower operating expenses, striking the ideal compromise for budget-conscious projects seeking long-term value and comfort through smart energy management.





## SMART DEHUMIDIFICATION CONTROL THAT IMPROVES INDOOR CLIMATES

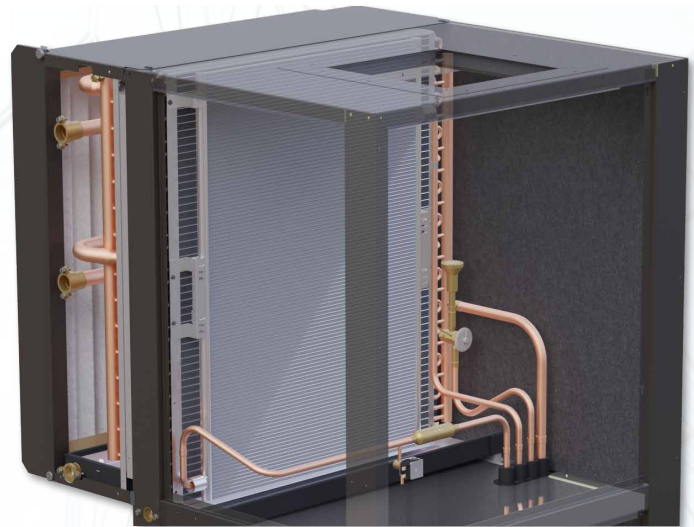


### Hot Gas Reheat

Unlike typical cooling, where removing humidity often leads to overcooling a space, Smart Dehumidification utilizes a hot gas reheat coil. When the space temperature is satisfied (meaning it's reached the desired setpoint for cooling), a humidistat signals the system to divert high-temperature refrigerant gas to a reheat coil located downstream of the cooling coil. This means the air is first cooled to remove moisture, and then reheated by the hot gas coil before being returned to the space. This process allows for significant moisture removal without causing the room to become too cold. The system also optimizes fan speed and airflow control to maximize moisture removal while precisely controlling humidity levels.

### Waterside Economizer

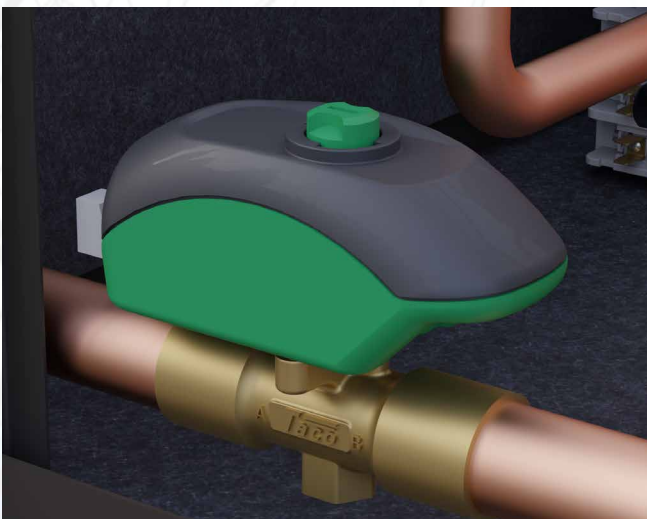
A waterside economizer coil offers significant energy savings by leveraging cool loop water for "free cooling" when seasonal conditions are favorable. When the loop water temperature is sufficiently low, the economizer coil can condition the space without activating the compressor, leading to lower operating costs and potentially earning energy rebates. This enhances efficiency, particularly in climates with cooler ambient temperatures, enabling for comfortable indoor environments while reducing the building's overall energy footprint.



### Factory-Installed Options

With components like valve packages, strainers, or sound blankets installed at the factory, you'll have peace of mind knowing they are integrated into the unit by skilled technicians specifically trained on that product line. This ensures:

- Components perfectly match the unit and avoids potential compatibility issues and field delays.
- Work is done in a controlled factory setting, free from job site variables like weather, dust or a lack of proper tools.
- Pre-shipment testing significantly reduces risk of on-site problems and enables successful operation from day one.





- 1 CABINTRY:** Design flexibility with slope top or flat top configurations, removable top, front and end panels for serviceability.
- 2 HIGH OR LOW SILL:** High sill units can allow for better convection currents and prevent damage from foot traffic; low sill units are space efficient and often better for retrofits.
- 3 HIGH EFFICIENCY COMPRESSOR:** Rotary design mounted on mass plate reduces noise and increases energy savings.
- 4 PIPING PACKAGES:** Includes control valves, P/T ports, strainer, ball shut-off valves and stainless steel flexible hose.
- 5 TANGENTIAL FAN:** Provides quiet, consistent airflow at varying operating conditions crucial for optimal heating and cooling performance.
- 6 LED STATUS LIGHTS:** Indicates operational states or faults to diagnose issues without needing specialized tools; facilitates quicker repairs for reduced downtime.
- 7 UNIT-MOUNTED CONTROLS/T-STAT:** Precise temperature and humidity control; BACnet® network communication module.
- 8 DISPOSABLE FILTER:** Reduces mold and bacteria growth inherent with uncleaned reusable filters.

- 9 HINGED CONTROL BOX:** Gain quick access to controls, junction box and other components for fast installation and service.
- 10 DOUBLE-SLOPED DRAIN PAN:** Removable and cleanable, non-corrosive polymer design promotes maintenance and clean indoor air quality
- 11 MULTI-DIRECTIONAL GRILLS:** Easily change discharge air flow direction with rotatable grilles.

## MORE

**OUTSIDE AIR DAMPERS:** Increase ventilation air control with motorized operation.

**WIRELESS THERMOSTAT:** Remote access and precise temperature control without wiring costs.

**HIGH-SILL EXT. END POCKETS:** 11-inch service access for different piping arrangements.

**HIGH SUBBASE:** 7-inch subbase adds more flexibility for piping arrangement variables.

**MOTORIZED VALVE:** Reduces operating cost for variable pumping applications.

**ELECTRIC HEAT:** Factory-installed boilerless electric heat option.



## FEATURES & OPTIONS



- 8 LED STATUS LIGHTS:** Indicates operational states or faults to diagnose issues without needing specialized tools; facilitates quicker repairs for reduced downtime.

**OUTSIDE AIR DAMPERS:** Increase ventilation air control with motorized air damper.

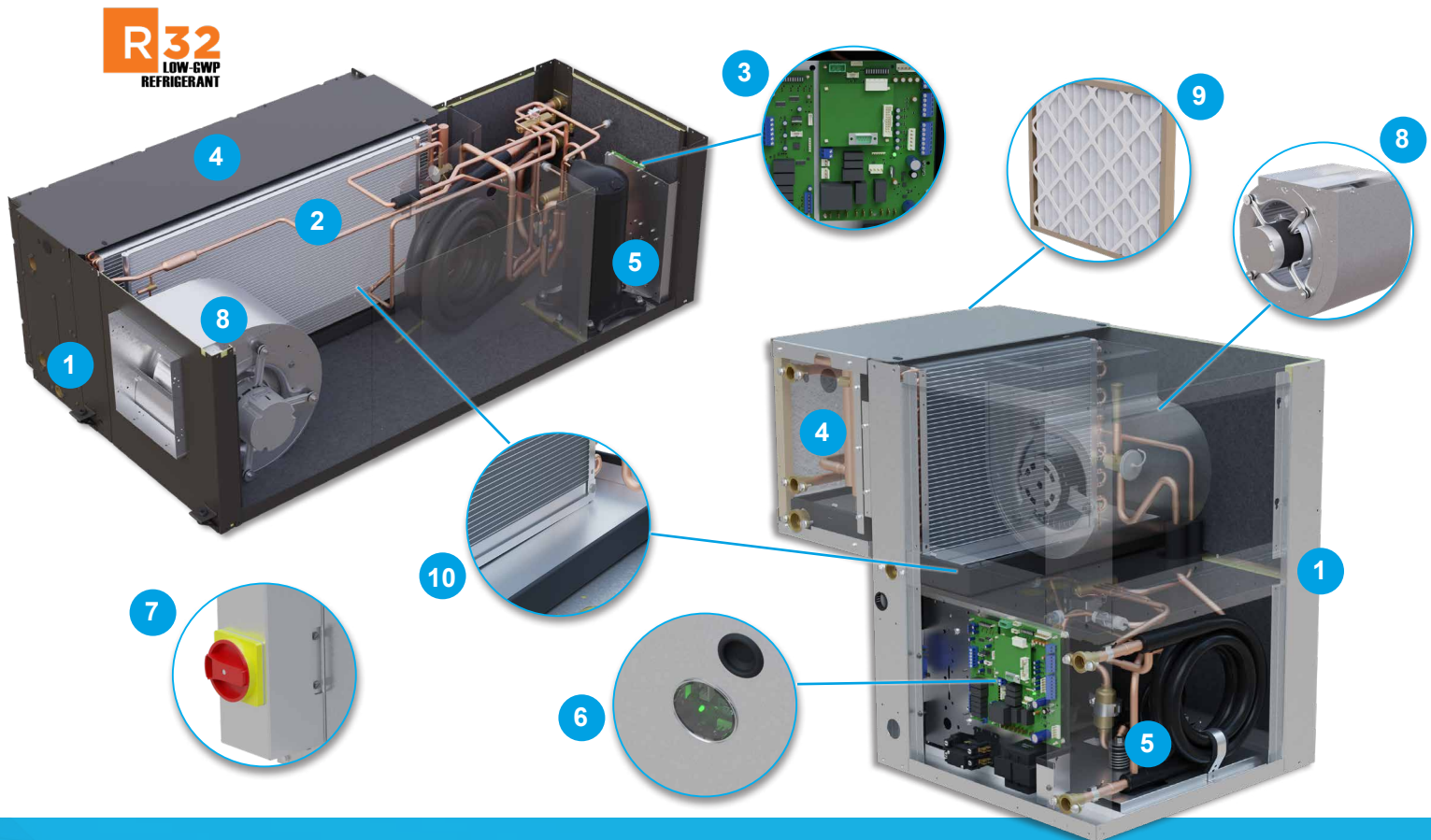
**SECONDARY DRAIN PAN:** Optional stainless steel drain pan provides effective anti-microbial protection.

**MOTORIZED VALVE:** Reduces operating cost for variable pumping applications with motorized two-way isolation valves.

**WIRELESS THERMOSTAT:** Convenient remote access and precise temperature control without wiring labor cost.

**FOAM INSULATION/SOUND BLANKET:**  
Lower operational decibel levels for sound sensitive applications.

## 3-TIER HORIZONTAL/VERTICAL **SMARTSOURCE®**



- 1 CABINETY:** Heavy gauge unpainted galvanized steel or powder coat textured paint with dual-density coated fiberglass insulation.
- 2 HOT GAS REHEAT:** Provides dehumidification without overcooling, enhances IAQ.
- 3 MICROTECH UNIT CONTROLS:** Precise temperature and humidity control; networking via BACnet® communication module.
- 4 WATERSIDE ECONOMIZER:** Reduces compressor energy consumption by using a multi-row cold water coil for cooling under suitable conditions.
- 5 2-STAGE COMPRESSOR:** Quiet operation with better efficiencies to reduce operating costs; limits temperature swings for improved comfort.
- 6 LED STATUS LIGHTS:** Indicates operational states or faults for quick diagnosing of issues.
- 7 NON-FUSED DISCONNECT:** Convenient power shut-off and lockout for quick serviceability.
- 8 PSC OR EC FAN MOTORS:** Standard PSC or superior EC fan motors provide optimum cost/value performance selections.
- 9 DISPOSABLE FILTER:** Reduces mold and bacteria growth inherent with uncleaned reusable filters.
- 10 DOUBLE-SLOPED DRAIN PAN:** Removable and cleanable, heavy-gauge, insulated galvanized steel or optional stainless steel for improved IAQ.

### MORE

**MERV 8/13 FILTERS:** Provides superior filtration required for high IAQ applications.

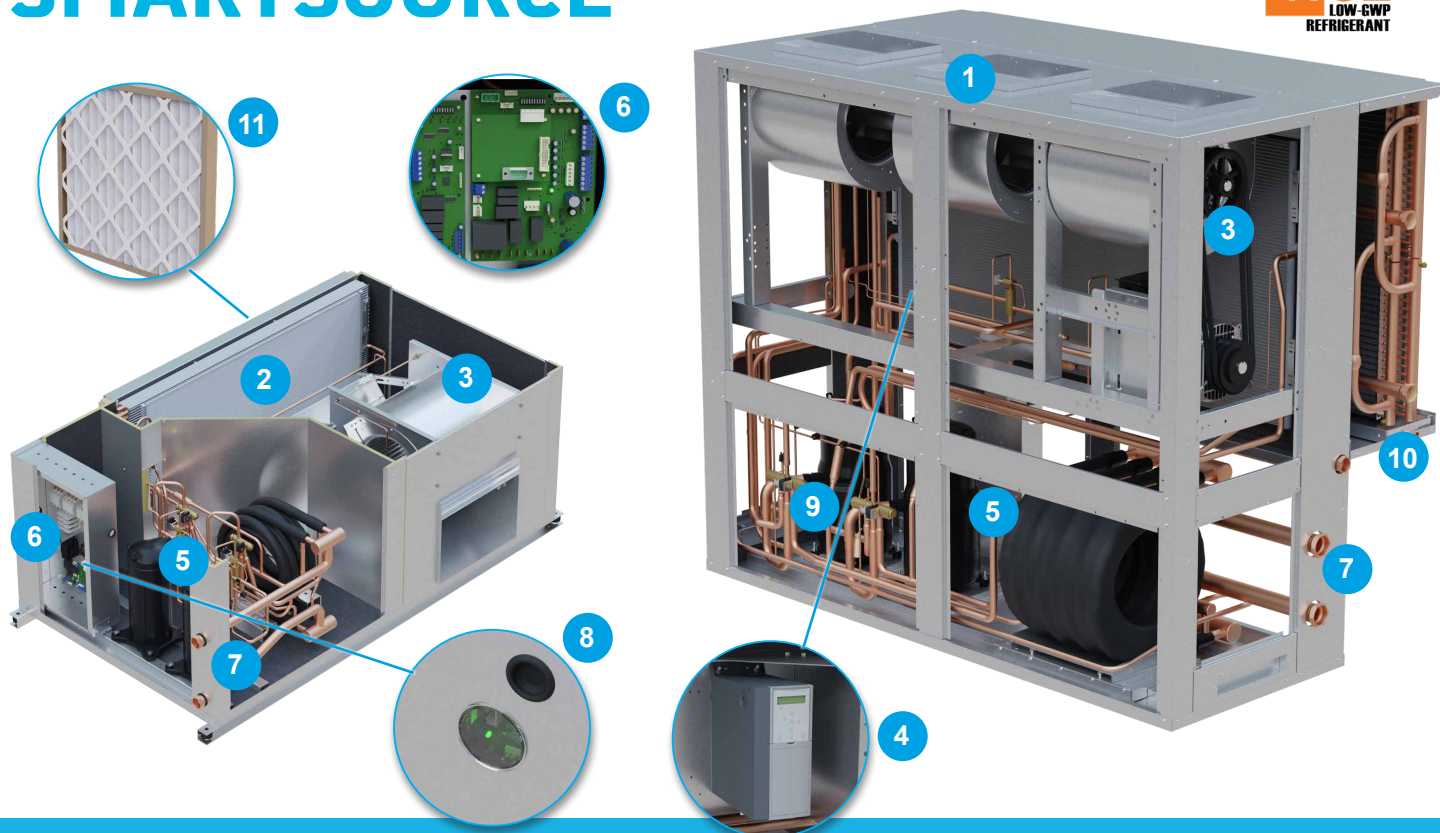
**MOTORIZED VALVE:** Reduces operating cost for variable pumping applications.

**INSULATION/SOUND BLANKET:** Lower decibel levels for sound sensitive applications.



## LARGE CAPACITY HORIZ./VERT. SMARTSOURCE®

**R32**  
LOW-GWP  
REFRIGERANT



**1 CABINTRY:** Heavy gauge, unpainted galvanized steel helps protect against corrosion.

**2 HOT GAS REHEAT:** Provides dehumidification without overcooling, enhances IAQ.

**3 FORWARD CURVED FAN/MOTOR:** Moves a large volume of air at relatively low static pressures with low noise levels.

**4 VARIABLE FREQUENCY DRIVE:** Quiet, controlled acceleration reduces wear and tear extending the overall lifespan of the equipment.

**5 DUAL COMPRESSORS:** High-efficiency scroll, low upfront cost compared to multi or variable speed, quick set-point temperatures, universal parts.

**6 MICROTECH® UNIT CONTROLS:** Precise temperature and humidity control; networking via BACnet® communication modules.

**7 EXTERNAL PIPE CONNECTIONS:** Simplifies, quickens installation and service

**8 LED STATUS LIGHTS:** Indicates operational states or faults for quick diagnosing of issues.

**9 DUAL REFRIGERATION CIRCUITS:** Redundancy ensures uninterrupted cooling for mission-critical facilities and processes.

**10 DOUBLE-SLOPED DRAIN PAN:** Removable and cleanable, heavy-gauge, insulated galvanized steel or optional stainless steel for improved IAQ.

**11 DISPOSABLE FILTER:** Reduces mold and bacteria growth inherent with reusable filters.

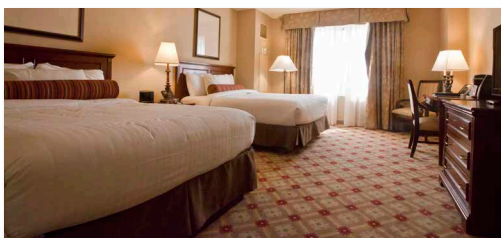
### MORE

**WATERSIDE ECONOMIZER:** Reduces compressor energy consumption by using a multi-row cold water coil for cooling under suitable conditions.

**MERV 8/13 FILTERS:** Provides superior filtration required for high IAQ applications.

**MOTORIZED VALVE:** Reduces operating cost for variable pumping applications.

**INSULATION/SOUND BLANKET:** Lower decibel levels for sound sensitive environments.



## HOSPITALITY

SmartSource's compact design allows and flexible installation makes them ideal for hotels and other hospitality venues. In addition to their low operational costs, they ensure quiet operation and precise temperature control for optimal guest comfort.



## RETAIL

With advanced controls and zoning capabilities, SmartSource enhances comfort while reducing operation costs. Their reduced footprint and discrete, concealed designs are optimum for retail environments demanding consistent temperature and air quality for an enhanced shopping experience.



## EDUCATION

The versatility of SmartSource unit design, features and installation allows for precise temperature control in different areas of school buildings with varying climate exposure. Applying these units ensures consistent, comfortable learning environments for both students and faculty.



## OFFICE BUILDINGS

Beyond precise comfort control, reducing energy consumption and lowering utility costs. SmartSource also supports growing office building sustainability goals by utilizing environmentally friendly refrigerants and minimizing carbon footprints for modern, sustainability goals.



# SMARTSOURCE® WSHP SOLUTIONS



## NAME/MODEL:

### SMARTSOURCE® CONSOLE

WSRC  
Console



½-1-1/2 ton

### SMARTSOURCE® VERTICAL STACK

WSVF/WSVC  
Vertical Stack



¾-3 ton

### SMARTSOURCE® 3-TIER

WSCH/WSCV/WSDH/WSDV/WSMH/WSMV/  
WSNH/WSNV/WSH/WSV/WSH/WSH/  
Horiz. & Vert./Single & Dual Stage Comp.



½-6 ton

### SMARTSOURCE® LG. CAPACITY

WSLH/WSLV  
Horizontal & Vertical/Dual Comp.



6-25 ton



Tons

0

5

10

15

20

25

LEARN MORE AT

[DAIKINAPPLIED.COM/PRODUCTS/WATER-SOURCE-HEAT-PUMPS](http://DAIKINAPPLIED.COM/PRODUCTS/WATER-SOURCE-HEAT-PUMPS)

# MAINTAIN AND REPAIR

PROTECTIVE MAINTENANCE SERVICES

[LEARN MORE](#)

## REPAIR SERVICES

Breakdowns happen and when your equipment has an issue, time is of the essence. Call us at 800-432-1342 to get Daikin Service professionals dispatched quickly and minimize downtime. Your local team is backed by nearly 100 years of experience to alleviate undue stress in your operations.

- **24/7 Emergency Service**
- **System Repairs & Assessments**  
(Ancillary Equipment: Boilers, Cooling Towers)
- **Equipment Diagnostics**
- **Technical Troubleshooting**
- **Building Automation & Controls**
- **OEM & Generic Parts/Supply**
- **All Equipment Types & Brands**

## PREDICTIVE SERVICES

Predictive maintenance services anticipate failures before they happen to mitigate the risk of catastrophic failure. For those who have in-house maintenance capabilities, Daikin Service can also guide your team and be on standby for more complex technical needs with predictive maintenance.

- **Oil & Refrigerant Analysis**
- **Vibration Analysis**
- **System Diagnostics**
- **Eddy Current Testing**
- **Infrared Analysis**
- **Combustion Analysis**
- **IAQ Assessments**
- **Laser Alignments**
- **Bearing Analysis**

## PLANNED MAINTENANCE SERVICES

Daikin Applied's service technicians can perform all of the vital maintenance your system needs to ensure your equipment is running at peak efficiency. From proper cleaning to software upgrades and necessary maintenance, our techs will maximize your system to help extend the life of your equipment.

- **Regularly Scheduled Maintenance**
- **Seasonal Startup & Shutdown**
- **System Diagnostics**
- **Condenser Cleaning**
- **Air Filters**
- **On-site System Inspections**

## PROACTIVE SERVICES

With proactive maintenance services, we support you with proven experts, offerings and processes to ensure customers get the help they need from a trusted advisor.

- **Building Operations Review**
- **Contingency Planning**







# RENTAL SOLUTIONS

KEEPING YOU UP AND RUNNING

[LEARN MORE](#)



## CHILLERS | AIR CONDITIONERS | DEHUMIDIFIERS | HEATING | POWER

### EMERGENCY RENTALS

When your equipment fails, limiting downtime is mission critical. Daikin Applied provides quick delivery and installation of reliable rental products to help you weather the outage. We're here to help get you back up and running, and can provide a turnkey solution.

- Industry-leading efficiency and proven technology
- 24-hour turnaround on available inventory
- 8-hour average set up with on-site experts
- Comprehensive package, including pumps, flexible water piping connection and electrical hookups

### EQUIPMENT FOR PLANNED SITUATIONS

Forming a contingency plan in the event of an outage can help you quickly get operations back to normal and limit financial loss, and help you breathe easier when the unexpected happens. Selecting the right-sized equipment is just one part of the process. The best contingency plans start by assessing and understanding your financial risk, and then using this information to drive the rest of your plan. Our Rental Solutions experts can specify the supplemental cooling system required to support any situation you're experiencing.

- System maintenance
- Building expansion
- Server room heat generation
- Seasonal/staff heat load swings
- Contingency plans

### SUPPLEMENTAL CAPACITY

When the demand of your facility or process exceeds your current system's capacity because of record-high temperatures or changes to cooling requirements, Daikin temporary rentals can be used to increase your heating or cooling output. By eliminating the need to purchase additional equipment that might be only used part of the year, you save on capital expenditures.

### STANDBY

Standby for critical applications and processes is another efficient use for temporary rental equipment. A temporary system is sometimes used to back up manufacturing and chemical processes, or when a hospital's required system redundancy has been reduced.



# COMPLETE HVAC SYSTEM SOLUTIONS

SELF-CONTAINED | ROOFTOPS | COILS | CONDENSING UNITS  
AIR HANDLERS | WATER-COOLED CHILLERS | AIR-COOLED CHILLERS  
MODULAR CENTRAL PLANTS | SITELINE BUILDING CONTROLS  
UNIT HEATERS | FAN COILS | AIR PURIFIERS | WATER SOURCE HEAT PUMPS  
VARIABLE AIR VOLUME UNITS | UNIT VENTILATORS



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1-800-432-1342 | 763-553-5330

LEARN MORE AT  
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