SPACE PAK®

Product Information Guide

Small Duct High Velocity System

Inverter Air-to-Water Heat Pump Hydronic System

SPACE PAK® *Product Guide*

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Inverter Air-to-Water Heat Pump Hydronic System

SPACE PAK® *Preserving Aesthetics and Architectural Integrity*

At Home in Historical Houses and New Construction

SpacePak is the original, small duct cooling/heating solution for older homes not equipped for central air (heated with hot water, steam or electric heat) and new homes featuring hydronic heating systems, including radiant floor heating.

SpacePak's successful track record includes thousands of residential and light commercial installations and opens up opportunities for installations that fall outside of the normal cookie cutter applications. Ease of installation and quiet, efficient operation make SpacePak the number one choice of quality-conscious contractors, homeowners and building owners.

No Major Remodeling, Speeds and Simplifies Installation

SpacePak is designed to be installation friendly. Fan Coil units are small enough to fit in attics, basements, crawl spaces and closets. Conditioned air is distributed through flexible, pre-insulated 2" diameter ductwork (SDHV) that weaves through wall structures and around obstructions. No large, cumbersome ductwork is required, saving time while reducing installation costs and maintaining architectural integrity.

SpacePak is ultra quiet and works through the principle of aspiration. Air in the duct is under 5 to 6 times higher pressure than conventional systems.

J Series Air Handler

Horizontal/Vertical DX Fan Coil Units

Features

- J+ Advanced Control with Digital Display
- High Efficiency EC Integrated Motor/Blower Assembly
- Mode Specific Adjustable Speed Control
- 230V Standard Configuration Optional 115V Conversion
- Heat Pump Compatible
- 6-Row Copper/Aluminum Evaporator Coil
- Sweat-Type Refrigerant Connections
- New Industry Leading Corrosion-Resistant Cabinet
- Primary Drain Pan w/Integrated Float Switch
- Anti-Vibration Foam Strips
- Chatleff Thermal Expansion Valve
- Slide Out Blower
- 5-Year Warranty for Certified Contractors

Our compact air handling unit is small enough to fit in a closet, attic, basement, or crawlspace yet powerful enough to deliver the level of cooling or heating needed by even the largest of homes.

Horizontal Fan Coil Unit Dimensions

Model	Height	Width	Length	Ship Wt.
ESP-2430J	14-1/8"	24-1/4"	29-3/8"	105 lbs.
ESP-3642J		33-1/4"		123 lbs.
ESP-4860J		43-1/4"		144 lbs.

Vertical Fan Coil Unit Dimensions

Model	Height	Width	Length	Ship Wt.
ESP-2430JV	33"	24"	16-1/8"	135 lbs.
ESP-3642JV		33"		170 lbs.
ESP-4860JV		43"		210 lbs.

Specifications

Model	Nominal System Capacity		Std. CFM @ 1.2" W.C.	F.L. Amps (115V/230V)	Motor HP	Connections	
	Nom. Tons	Cool MBH*				Suction Line	Liquid Line
ESP-2430J/V	2	24	440	5.6/2.8	3/4	7/8"	3/8"
	2-1/2	30	550				
ESP-3642J/V	3	36	660	7.6/3.8	3/4	7/8"	3/8"
	3-1/2	42	850				
ESP-4860J/V	4	48	880	10.6/5.3	3/4	7/8"	3/8"
	5	60	1150				

Click or Scan for More Info

Humidity Removal

30% Better Humidity Removal than Conventional Air Conditioning

ASHRAE Psychrometric Chart No. 1
Normal Temperature
Barometric Pressure
29.921 Inches of Mercury
Sea Level

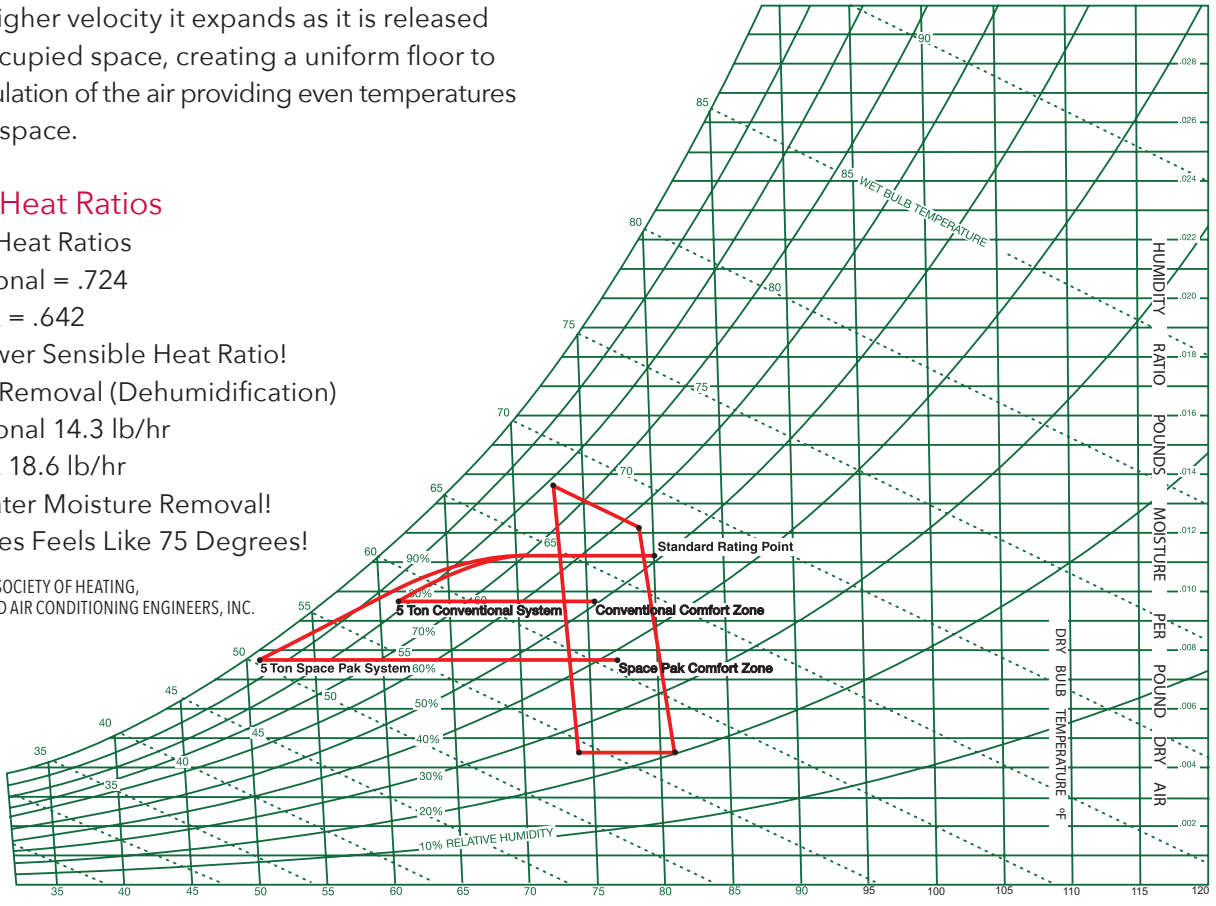
SpacePak fan coil units move approximately half the air (250 CFM vs 400 CFM per ton of cooling) than a traditional system at higher pressure. SpacePak coils are a more robust 6 row design allowing for a greater temperature drop (24° - 28°) versus a competitors (15° - 20°), resulting in more moisture (humidity) removal. The drier air allows SpacePak systems to be set at higher temperatures with no sacrifice in comfort while saving substantial energy.

A simple adjustment of 2° in the thermostat setting from 70° to 72° can result in up to 15% savings on annual cooling costs.

SpacePak systems eliminate hot and cold spots through the process of aspiration. The air exits the pressurized duct at a higher velocity it expands as it is released into the occupied space, creating a uniform floor to ceiling circulation of the air providing even temperatures across the space.

Sensible Heat Ratios

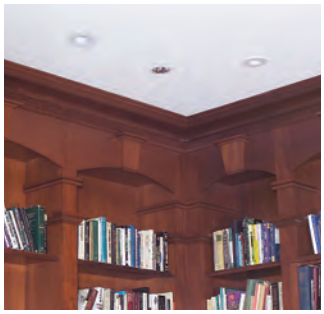
- Sensible Heat Ratios
- Conventional = .724
- SpacePak = .642
- 11.5% Lower Sensible Heat Ratio!
- Moisture Removal (Dehumidification)
- Conventional 14.3 lb/hr
- SpacePak 18.6 lb/hr
- 30% Greater Moisture Removal!
- 77 Degrees Feels Like 75 Degrees!



NOTE: All temperature measures listed are Fahrenheit.

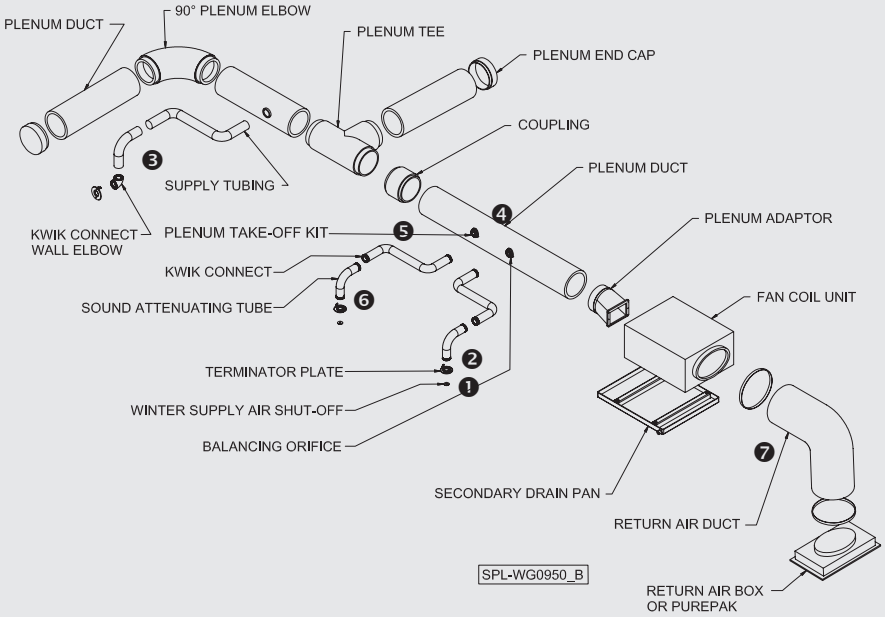
Typical Installation

Easy to Install System



The SpacePak system has been designed to reduce installation time and cost for installing contractors. Small diameter, flexible tubing weaves around construction obstacles and eliminates the need for large, cumbersome ductwork and major structural renovations. Fittings simply snap securely into place with no tools required. The typical installation diagram and guidelines listed below provide a quick reference to ensure successful installation and operation of the system. More detailed and comprehensive information is available on our website at **www.spacepak.com**.

Click or Scan for Installer Training Videos



1. **Outlets –** The most important rule of thumb when installing a SpacePak system is having the proper number of outlets. Six (6) to Seven (7) outlets per ton are recommended for optimal 35-40 CFM airflow from each outlet under normal conditions to maximize aspiration.
2. **Outlet Placement –** Outlets should be placed in the room where they will create the least disturbance (floors, ceilings, walls) and not infringe upon inhabitants with turbulent air. Traffic patterns, drapes and bed placement are all factors to consider.
3. **Supply Duct –** Ideally, all runs should be as equal in length as possible. Keep the 2" duct length between 9 ft. and 30 ft. for best performance. The longer the run, the lower the CFM capacity. See performance chart in IOM.
4. **Main Trunk/Plenum –** Maximize use of the main trunkline in order to minimize the lengths of 2" duct. It will allow for an easier installation and better performing, balanced system if 2" duct lines are minimized.
5. **Locating Take-Offs –** Distribute takeoffs as evenly as possible along the main trunkline – no closer than 6" away from one another. This will assure better balanced airflow.
6. **Sound Attenuators –** The last 3 ft. of every run should use a fully-fabricated SpacePak sound attenuator to reduce outlet air sound.
7. **Return Air Duct –** Minimize potential fan noise and maximize performance of this acoustically lined duct by incorporating a 90-degree bend between the air handler and return grille.

Click or Scan for Tips and Tricks Book

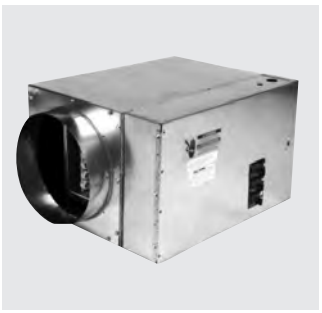
Heating Options

Model EEH Electric Duct Heater

SpacePak's Duct Heaters are designed for easy installation and reliability. They are specifically engineered not to exceed safe operating temperatures. These heaters can provide a great economical heating source and are available in a variety of configurations.

Features

- 2 to 20 Nominal kW Output
- Direct Mount to Horizontal and Vertical Air Handlers
- Single or Dual Power Supply
- Internal Safeties
- Internal Staging Controls
- Simple Wiring
- Simple On/Off Light Indicator

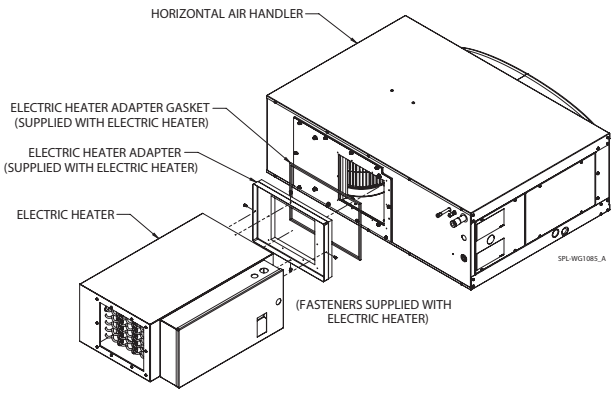


Specifications

	Model	EEH-020	EEH-050	EEH-075	EEH-100	EEH-150	EEH-200
Performance	Nominal Output (kw)	2	5	7.5	10	15	20
	Nominal Output (BTU's)	6,830	17,076	25,614	34,152	51,228	68,304
	Min Airflow (CFM)*	100	200	300	500	600	800
Dimensions	L x W x H (inches) Incl Electrical Panel	26 x 19 x 10.5				28 x 19 x 10.5	
	Shipping (L x W x H inches)	29 x 23 x 13.25				31 x 23 x 13.25	
	Shipping Weight (lbs)	37		38		46	47
Electrical***	Power Supply (volts/ph/hz)	240/1/60					
	Control Volts (VDC)	24					
	Heater Amps (Ckt #1)**	8.3	20	30	40	20	40
	Heater Amps (Ckt #2)**	N/A				40	40
	Min Wire Gauge Dual (AWG)	N/A				#8 / #6	#6/#6
	Min Wire Gauge Single (AWG)	#10	#8	#6	#6	#4	#2
	Stages	1				2	
Air Handler Applicable	ESP/WCSP 2430 J (H & V)	YES	YES	YES	YES	NO	NO
	ESP/WCSP 3642 J (H & V)					YES	
	ESP/WCSP 4860 J (H & V)						YES

*Based upon 70°F entering air and discharge not to exceed 160°F
**@ 240VAC
***To achieve FLA value, air handler amp rating (found on data plate) needs to be added.

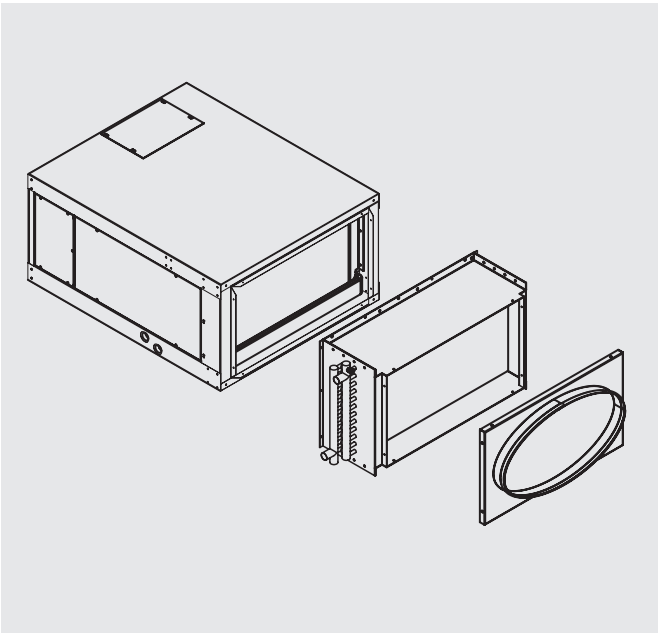
Typical Heater Installation



Heating Options

Model WPAK Hydronic Coil

WPAK Hydronic heating coil is designed for use with SpacePak fan coil units in conjunction with a boiler or other hot water heating supply equipment. Easily mount to the inlet of the fan coil unit. Use the chart below to match the proper hydronic coil with the SpacePak fan coil unit.



Water Pressure Drop (in feet @ 180°)

GPM	AC-WPAK-60	AC-WPAK-90	AC-WPAK-120
2	0.4	0.4	0.5
4	1.4	1.6	1.7
6	3.0	3.3	3.7
8	5.2	5.7	6.3
10	7.9	8.7	9.6

Heating Capacity MBH

CAUTION:
Areas shaded in **RED** can exceed 160°F leaving air temperature. To prevent injury or damage, do not install floor outlets when the system is operating in this range.

Model AC-WPAK-60 for ESP 2430

	Entering Water Temperature °F				
GPM	120	140	160	180	200
2	20.5	30.0	39.1	48.1	57.2
4	25.2	35.6	46.1	56.6	67.1
6	26.6	37.4	48.3	59.2	70.2
8	27.2	38.2	49.3	60.4	71.6
10	27.5	38.7	49.9	61.1	72.3

At 550 CFM and 70°F Entering Air Temperature*

Model AC-WPAK-90 for ESP 3642

	Entering Water Temperature °F				
GPM	120	140	160	180	200
2	28.8	39.2	51.6	63.4	75.2
4	36.0	50.8	65.7	80.8	95.8
6	39.0	54.9	70.9	87.0	103.1
8	40.4	56.8	73.3	89.9	106.5
10	41.2	57.9	74.7	91.5	108.4

At 850 CFM and 70°F Entering Air Temperature*

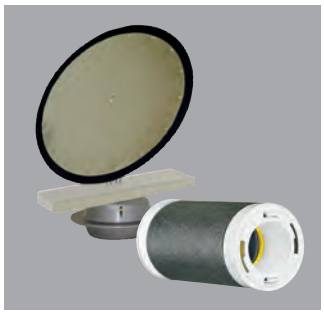
Model AC-WPAK-120 for ESP 4860

	Entering Water Temperature °F				
GPM	120	140	160	180	200
2	31.7	46.2	61.2	75.1	89.0
4	45.6	64.2	83.0	102.0	120.9
6	50.6	71.2	92.0	112.9	133.8
8	53.1	74.7	96.4	118.2	140.1
10	54.6	76.7	98.9	121.2	143.6

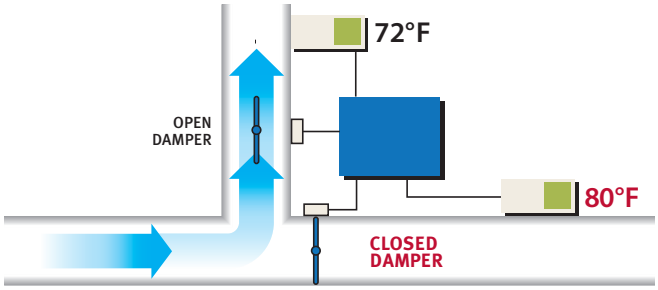
At 1150 CFM and 70°F Entering Air Temperature*
*To calculate Leaving Air Temperature (LAT) use the following formula: LAT=[BTUH/(1.08XCFM)] +70

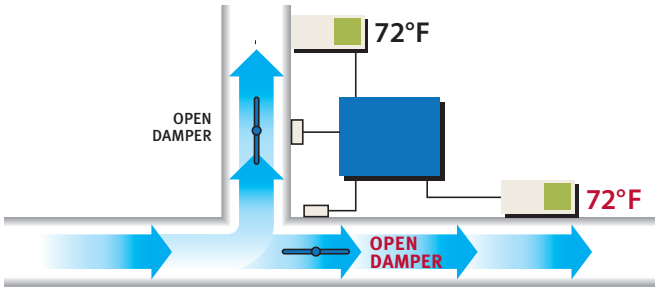
ZonePak®

Damper System



The ZonePak Difference





ZonePak's control panel interacts with up to three different thermostats to direct conditioned air from the fan coil unit to whichever zone needs it. The use of branch dampers, with or without plenum dampers, offers even more flexibility.

ZonePak® – A unique air-driven damper system – allows for the effortless installation of up to three custom comfort zones working off three independent thermostats. The addition of zoning to the SpacePak system gives installing professionals a tremendous opportunity to offer even more precise comfort to a large segment of the demanding residential and commercial market. ZonePak addresses the unique comfort needs of historical buildings, architecturally challenging structures and anywhere radiant, steam or hot water heat is installed. By delivering conditioned air only where it's wanted, when it's wanted, the needs of all occupants are met while energy costs are reduced.

Benefits of Zoning*

- Greater Occupant Comfort
- Allows for Decreases in System Capacity Demand
- Increased Installation Flexibility
- Reduced Energy Consumption

Standard Features

- 2 or 3 Zones with One Fan Coil Unit
- Controls Integrate with Any Secondary Heat Source
- Reliable Operation Provided by Air-Driven Dampers
- Simple 24 Volt Wiring
- Quiet Operation
- Pre-Programmed Controls
- Convenient Packaged Systems

The all new SpacePak J+ advanced control makes zoning even easier by slowing the blower down or speeding up depending on Zone demands and targeted static pressure.

*ZonePak to only be used when system utilizes a staged or inverter type condenser.

PurePak

Recessed Air Cleaner

Most families don't realize that, according to the EPA, indoor air is on average 7-10 times more polluted than outdoor air, even if you live in a city. Harmful airborne particles and chemicals including odors, VOCs, molds, bacteria, allergens, fine dust, smoke, and pollen have been linked to a number of health problems such as allergies, asthma, fatigue, respiratory ailments, flu and other maladies.

The PurePak system is the key to cleaner, healthier air. Unlike typical ionic air cleaners and electrostatic precipitators, PurePak does not create ozone, lose efficiency as media loads, or require large, noisy fans to overcome airflow restrictions of dense media.

Features

- Protects you and your family from airborne allergens, bacteria, molds, pollen, smoke, fine dust particles and VOCs
- 97% capture efficiency of contaminants down to .3 microns
- Safe, patented operation does not create ozone
- Easy, low-cost maintenance
- 5-year powerhead warranty

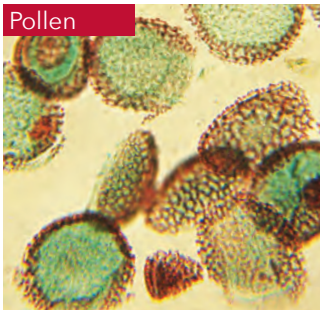
Keeps Homes Cleaner, Healthier and Fresher

PurePak turns your SpacePak system into a wholehouse air cleaner, quickly and economically. PurePak does not create charged particles that cling to grounded or charged surfaces such as TV screens.

Dimensional Data

Model	Outside Dimensions		Inside Dimensions		System Size
	Length	Width	Length	Width	
AC-RBC-2	27-5/8"	16-5/8"	25-3/8"	14-5/16"	2430
AC-RBC-3	32-5/8"		30-3/8"		3642
AC-RBC-5	38-5/8"		36-3/8"		4860

Up to 98% of airborne particles are 1 micron in size or smaller. These are the most damaging to the lungs. The PurePak system effectively rids the air of these particles.



PurePak eliminates these harmful particles as well as other chemicals and VOCs from the air you breathe.

SmartSeal

System Duct

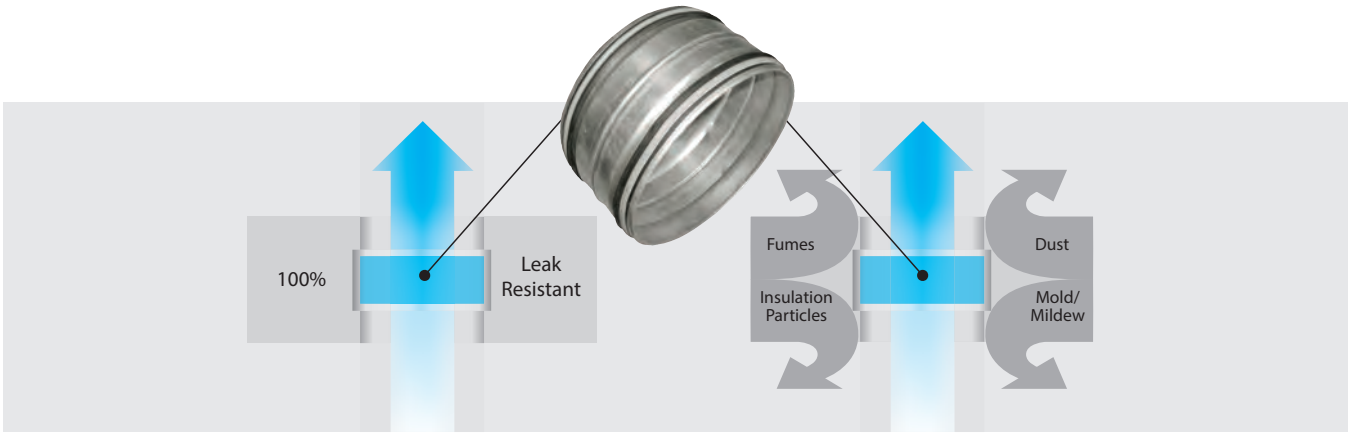
SmartSeal, SpacePak's spiral metal duct system (9" ID) provides homeowners and commercial building owners increased energy efficiency and improved indoor air quality.

The unique slip-fit joint seal of the SmartSeal utilizes patent pending technology and installs without the use of special tools or messy sealants. SmartSeal is 100% leak resistant to 10" W.C. and all duct lengths and fittings come standard with R8 insulating sleeves.

SmartSeals' factory installed gaskets are included on all fittings and couplings and are built for easy and quick installation when compared to most conventional duct systems.

Features

- Approved to SMACNA Duct Construction Standards and Leakage Class 3
- 100% Leak Resistant (to 10" W.C.)
- Fittings & Couplings Have Factory Installed Gasket
- Operating Temperature Range -20°F to 212°F
- Gasket is on Leading Edge of Fittings, Allowing Substantial Space for Screw Insertion
- Recyclable Material
- Contains up to 58% Recycled Materials
- Eligible for LEED Points
- Significantly Reduced Installation Time
- SmartSeal Spiral Duct Lengths are 26 gauge Galvanized Steel
- SmartSeal Fittings are 24 gauge Galvanized Steel
- Fittings & Couplings Have Hemmed Edge for Strength, Rigidity, and Maintaining Tolerances
- Smoke & Flame Spread Rating is 0/0 (in accordance with ASTM E-84-91A)



System Accessories

Outlets - Blend with Any Décor

SpacePak offers the widest variety of Outlets and Covers to blend with any décor. From finished aluminum and brass to natural wood grain. Wood outlets are pre-assembled with SpacePak Kwik Connects for easier installation.

Linear Slot Outlet

Linear slot outlet is designed for installation in both new construction and retrofit applications. The fully integrated outlet requires no additional mounting hardware and is supplied with a trim plate that boasts a slim profile less than 1/8".

Rough-In Bracket

Serves as a reference point for sheetrock outlet locations during the framing portion of new construction.

BasePak Secondary Drain Pans For Horizontal Fan Coil Units

SpacePak has designed a series of secondary drain pans specifically sized for use with all horizontal fan coil units. Exclusive built-in supports raise the unit off the bottom of the drain pan. Installed with threaded rod, the unique pan construction fully supports the fan coil unit. For use with all ESP or WCSP series coil units.

Kwik Connect Wall Elbow

Kwik Connect wall elbows simply snap into place for fast, easy installation in 2 x 4 construction.

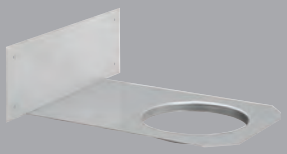
Kwik Connect Extension

Designed for installations using wall thicknesses above 1/2".

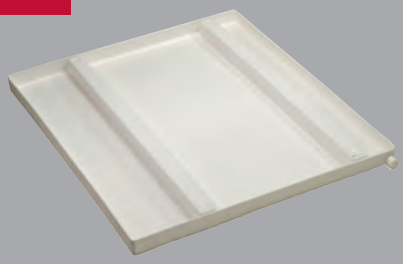
Round Outlets

Linear Slot Outlet

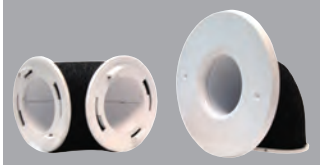
Rough-In Bracket



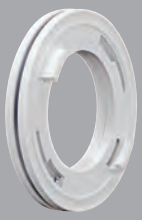
BasePak



Kwik Connect Wall Elbow



Kwik Connect Extension



SPACE PAK
solstice®
HEAT PUMPS

Conserving Energy and Environmental Integrity

Environmentally Friendly Heating & Cooling with Inverter Air-to-Water Heat Pumps & Hydronic Fan Coils

Carbon Free Hydronic Comfort

Any heating expert will tell you that low-temperature hydronic radiant floor heating is the "gold standard" of comfort and efficiency. Instead of using a fossil fueled boiler as its heat source, you can cut out carbon by using an air-to-water heat pump.

Click or Scan to Watch our Recent Video

Solstice air-to-water heat pumps serve as an ultra-efficient, all-electric energy source able to provide both heating and cooling for residential and light commercial settings, without the use of fossil fuels.

Solstice air-to-water heat pumps provide a promising solution for both new and existing hydronic applications that are aiming to reduce energy consumption, energy costs, and environmental impact.

- The physics that make water ideal for conveying heat also make it ideal for cooling.
- All the advantages of a hydronic (water) distribution system without the use of fossil fuels.
- Energy savings up to 47% greater than a typical high efficiency natural gas condensing boiler.
- Up to 70% less electricity use than electric baseboard.
- In comparison to geothermal, installation costs are significantly less, and comparable operating efficiencies are achieved.
- 30% more efficient than traditional air-source heat pumps.
- In comparison to traditional DX (refrigeration based) systems, it's both safer and more efficient to pump water than refrigerant through a living space.

Solstice Heat Pumps
Industry Leading Air-to-Water Technology

- High efficiency hydronic heat pumps that supply low temperature water for heating & chilled water for cooling
- Combines the performance of modern air-source heat pump technology with the unsurpassed comfort of hydronics
- Thousands of installations across the US and Cananda
- Industry proven Solstice technology
- Eligible for rebates

Extended warranty for SpacePak Certified Contractors:

- Industry leading 10-year compressor warranty
- 5-year parts warranty

NESEA INDUSTRY LEADER
NORTHEAST SUSTAINABLE ENERGY ASSOCIATION

Solstice® Inverter Monobloc

Mild Climate Air-to-Water Heat Pump

The Solstice Inverter Monobloc (SIM) is a mild-climate air-source heat pump. An all-in-one, all-electric, total-home comfort solution for heating, cooling, and domestic hot water offset. This unit is not ideal for cold climates but is specifically designed to deliver extremely high performance in milder climates and in all seasons.

The monobloc design makes it a self-contained unit that keeps all refrigerant conveniently and safely located outside the occupied space.

Features

- Available in 3- and 5-ton Models
- Monobloc Design, No Refrigerant Handling
- Reliable Mitsubishi Inverter Compressor
- Inverter Driven Fan Motors & EC Modulating Fans
- Environmentally Friendly & Low GWP Refrigerant R410A
- Advanced Intelligent Internal Control Platform Offering a Wide Range of Features
- Modbus Compatible
- Freeze Protection
- Low Amp Draw with Ultra Quiet Operation
- Eligible for Rebates!

Specifications

		Units	SIM-036	SIM-060
Cooling	Capacity Range	BTU/hr	12,704 - 34,423	17,884 - 59,523
	Efficiency Range	EER	11.26 - 11.74	10.75 - 11.26
	Efficiency	IPLV	12.2	12.1
	Water Temperature Setpoint	°F	46-68	
	Ambient Temp Range	°F	5-110	
Heating	Capacity Range	BTU/hr	13,191 - 38,755	25,413 - 70,666
	Efficiency Range	COP	4.04 - 5.01	3.69 - 4.67
	Water Temperature Setpoint	°F	86-130	
	Ambient Temp Range	°F	5-109	
CEC Data	Cooling Capacity/Efficiency*	BTU/hr/COP	34,120/10	49,490/8.8
	Heating Capacity/Efficiency**	BTU/hr/COP	39,240/3	56,315/3
	Heating Capacity/Efficiency***	BTU/hr/COP	21,236/1.9	48,260/1.9
Electrical	Power	V/Ph/Hz	230/1/60	
Refrigerant	Type		R410A	
Fan	Type		EC	
Sound (@3meters)	Maximum	dBa	54	58
Hydronic	Rated Flow	GPM	7	13
	Max Water Temp	°F	131	
	Piping Connections	inch	1	1 1/4
	Rated Pressure Drop @ Rated Flow	PSI (ft W.C.)	6/13.8	10/23
Compressor	Type		Rotary Inverter	
	Speed Range	Hz	30-90	
Dimensions	Net Dimensions (L x W x H)	inch	39 x 18 x 35	39 x 13 x 52
	Shipping Dimensions (L x W x H)	inch	41 x 19 x 36	42 x 18 x 53
	Net Weight/Shipping Weight	lbs.	243/271	326/368

CEC is California Energy Commission. Data is tested in accordance with AHRI 550/590
*= 44F LWT 54F EWT @10 GPM & 95F DB Ambient
**= 120F LWT 107F EWT @10 GPM & 47F DB Ambient
***= 120F LWT 110F EWT @10 GPM & 17F DB Ambient

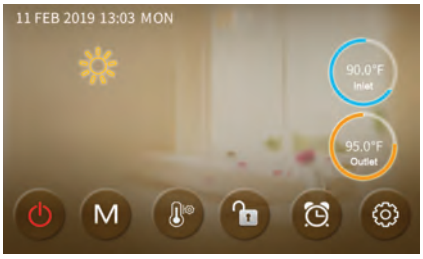
Click or Scan for More Info

Solstice® Inverter Extreme

Cold Climate Air-to-Water Heat Pump

The Solstice Inverter Extreme (ILAHP) is a cold climate air-source heat pump. An all-in-one, all-electric, total-home comfort solution for heating, cooling, and domestic hot water offset. This unit is specifically designed for cold climates and maintaining high performance heating in outdoor temperatures as low as -22°F.

The monobloc design makes it a self-contained unit that keeps all refrigerant conveniently and safely located outside the occupied space.



User friendly touch screen control allows for control outside by the unit or inside in the mechanical room.

Features

- Available in 4-ton model
- Monobloc Design, No Refrigerant Handling
- Reliable Toshiba Inverter Compressor with EVI Technology
- Inverter Driven Fan Motors & EC Modulating Fans
- Environmentally Friendly & Low GWP Refrigerant R410A
- Advanced Intelligent Internal Control Platform Offering a Wide Range of Features
- Modbus Compatible
- Freeze Protection
- Low Amp Draw with Ultra Quiet Operation
- Eligible for Rebates!

Specifications

		Units	ILAHP
Cooling	Capacity Range	BTU/hr	24,226-63,466
	Efficiency Range	EER	7.26-10.41
	Efficiency	IPLV	18.4
	Delivered Water Temp Range	°F	42-77
	Ambient Temp Range	°F	5-109
Heating	Capacity Range	BTU/hr	15,354-63,807
	Efficiency Range	COP	1.64-5.41
	Delivered Water Temp Range	°F	59-130
	Ambient Temp Range	°F	-22 - 109
CEC Data	Cooling Capacity/Efficiency*	BTU/hr/COP	45,424/8.59
	Heating Capacity/Efficiency**	BTU/hr/COP	53,214/2.78
	Heating Capacity/Efficiency***	BTU/hr/COP	36,903/1.82
Electrical	Power	V/Ph/Hz	230/1/60
Refrigerant	Type		R410a
Fan	Type		EC
Sound	Range	dBA	47-57
Hydronic	Rated Flow	GPM	12
	Max Water Temp	°F	130
	Piping Connections	inch	1-1/4 NPT
	Rated Pressure Drop @ Rated Flow	PSI (ft W.C.)	12.8 (29.5)
Compressor	Type		Rotary Inveter, EVI
	Speed Range	Hz	30-90
Dimensions	Net Dimensions (L x W x H)	inch	39 x 16 x 52
	Shipping Dimensions (L x W x H)	inch	42 x 17 x 53
	Net Weight/Shipping Weight	lbs.	349/388

CEC is California Energy Commission. Data is tested in accordance with AHRI 550/590
*= 44F LWT 54F EWT @10 GPM & 95F DB Ambient
**= 120F LWT 107F EWT @10 GPM & 47F DB Ambient
***= 120F LWT 110F EWT @10 GPM & 17F DB Ambient

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Solstice® Inverter Split

Cold Climate Air-to-Water Heat Pump

The Solstice Inverter Split (SIS) is a cold climate air-source heat pump. An all-electric, total-home comfort solution for heating and cooling. This unit is specifically designed for cold climates and maintaining high performance heating in outdoor temperatures as low as -20°F.

The split-system design provides installers with the flexibility to reduce the use of glycol in the hydronic loop.

Features

- Available in 5-ton Model
- Split-System Design
- Reliable Panasonic Inverter Compressor with EVI Technology
- Inverter Driven Fan Motors & EC Modulating Fans
- Environmentally Friendly & Low GWP Refrigerant R410A
- User Friendly Touch Screen Control
- SIS System Includes both Indoor and Outdoor Units, Refrigerant Line Set (35'), and Control Wire (50')
- Simple Indoor Piping Similar to Wall Hung Boilers
- Freeze Protection
- Low Amp Draw with Ultra Quiet Operation
- Eligible for Rebates!

Units use inverter driven compressors with EVI technology for superior performance efficiency at temperatures as low as -20°F.

EC controlled modulating fan motors combined with high efficiency blade profile ensure quiet end efficient operation while exchanging energy with the outdoor air.

Specifications

		Units	Outdoor	Indoor
Cooling	Capacity Range	BTU/hr	21,484-74,489	
	Efficiency Range	EER	7.12-18.05	
	Efficiency	IPLV	17.14	
	Delivered Water Temp Range	°F	41-68	
	Ambient Temp Range	°F	5-109	
Heating	Capacity Range	BTU/hr	10,412-76,023	
	Efficiency Range	COP	1.19-3.92	
	Delivered Water Temp Range	°F	60-140	
	Ambient Temp Range	°F	-22-90	
CEC Data	Cooling Capacity/Efficiency*	BTU/hr/COP	39,714/8.14	
	Heating Capacity/Efficiency**	BTU/hr/COP	55,499/2.9	
	Heating Capacity/Efficiency***	BTU/hr/COP	37,505/1.9	
Electrical	Power	V/Ph/Hz	230/1/60	
Refrigerant	Type		R410A	
Fan	Type		EC	N/A
Sound	Range	dBa	50	38
Hydronic	Rated Flow	GPM	12	
	Max Water Temp	°F	130	
	Piping Connections	inch	N/A	1"
	Rated Pressure Drop @ Rated Flow	PSI (ft W.C.)	N/A	10.7/24.7
Compressor	Type		Rotary Inverter, EVI	N/A
	Speed Range	Hz	30-90	N/A
Dimensions	Net Dimensions (L x W x H)	inch	35x15x55	17x14x30
	Shipping Dimensions (L x W x H)	inch	37x17x55	33x21x17
	Net Weight/Shipping Weight	lbs.	293/337	132/158

CEC is California Energy Commission. Data is tested in accordance with AHRI 550/590
*= 44°F LWT 54°F EWT @9 GPM & 95°F DB Ambient
**= 120°F LWT 107°F EWT @9 GPM & 47°F DB Ambient
***= 120°F LWT 110°F EWT @10 GPM & 17°F DB Ambient

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Commercial Inverter

Cold Climate Air-to-Water Heat Pump

The Inverter Commercial Heat Pump is a cold-climate air-source heat pump aimed to serve as an all-electric solution for heating and cooling of commercial buildings and decarbonization projects. This unit is designed to maintain high performance heating in outdoor temperatures as low as -22°F.

The monobloc design makes it a self-contained unit that keeps all refrigerant conveniently located outside the occupied space.

Features

- Available in 18-ton Model
- Monobloc Design, No Refrigerant Handling
- Reliable Hitachi Inverter Compressor with EVI Technology
- Inverter Driven Fans & Fan Motors
- Environmentally Friendly & Low GWP R410A Refrigerant
- Advanced Intelligent Internal Control Platform Offering a Wide Range of Features
- BMS Compatible through Modbus
- Automatic & Built-in Freeze Protection
- Independent Refrigeration Circuits for Built-in Redundancy
- Low Amp Draw with Quiet Operation

Specifications

		Units	HP0275
Cooling	Capacity Range	BTU/hr	74,003-353,225
	Efficiency Range	EER	7.88-18.68
	Efficiency	IPLV	17.1
	Delivered Water Temp Range	°F	41-86
	Ambient Temp Range	°F	5-131
Heating	Capacity Range	BTU/hr	52,543-541,382
	Efficiency Range	COP	1.46-7.64
	Delivered Water Temp Range	°F	59-140
	Ambient Temp Range	°F	-22-109.4
CEC Data	Cooling Capacity*/Efficiency	BTU/hr/EER	226,586/8.95
	Heating Capacity**/Efficiency	BTU/hr/COP	274,965/2.43
	Heating Capacity***/Efficiency	BTU/hr/COP	187,254/1.82
Electrical	Power	V/Ph/Hz	460/3/60
Refrigerant	Type		R410A
Fan	Power Input	W	550
	Type		DC
Sound (@3meters)	Range	dBa	54-67
Hydronic	Rated Flow	GPM	52.83
	Max Water Temp	°F	140
	Piping Connections	inch	2.5
	Rated Pressure Drop	PSI (ft W.C.)	10.15 (23.3)
Compressor	Type		INVERTER SCROLL, EVI
	Speed Range	Hz	30-120
Dimensions	Net Dimensions (L x W x H)	inch	85.4×45.3×83.9
	Shipping Dimensions (L x W x H)	inch	86.6×52.2×88.2
	Net Weight/Shipping Weight	lbs.	1,616/1,709

CEC is California Energy Commission. Data is tested in accordance with AHRI 550/590
*= 44°F LWT 54°F EWT @45 GPM & 95°F DB Ambient
**= 120°F LWT 107°F EWT @45 GPM & 47°F DB Ambient
***= 120°F LWT 110°F EWT @45 GPM & 17°F DB Ambient

SP HP Manual

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J Series Hydronic Air Handler

Horizontal/Vertical Hydronic Fan Coil Units

Features

- J+ Advanced Control with digital display
- High Efficiency EC Integrated Motor/Blower Assembly
- 230V Standard Configuration Optional 115V Conversion
- 6-Row Copper/Aluminum Evaporator Coil
- Industry Leading Corrosion Resistant Cabinet
- Primary Drain Pan w/Integrated Float Switch
- Anti-Vibration Foam Strips
- Condensate Trap
- Slide out Blower
- 24 V 50/60hz Transformer
- Sweat-Type Connections
- 5-Year Warranty for Certified Contractors

Horizontal Fan Coil Unit Dimensions

Model	Height	Width	Length	Ship Wt.
WCSP-2430J	14-1/8"	24-1/4"	29-3/8"	105 lbs.
WCSP-3642J		33-1/4"		123 lbs.
WCSP-4860J		43-1/4"		144 lbs.

Vertical Fan Coil Unit Dimensions

Model	Height	Width	Length	Ship Wt.
WCSP-2430JV	34"	24"	16-1/8"	108 lbs.
WCSP-3642JV		33"		130 lbs.
WCSP-4860JV		43"		152 lbs.

Specifications

Model	Nominal System Capacity		Std. CFM @ 1.2" W.C.	F.L. Amps (115V/230V)	Motor HP	Connections (CTS)	
	Nom. Tons	Cool MBH*				Water In Line	Water Out Line
WCSP-2430J/V	2	24	440	5.6/2.8	3/4	7/8"	7/8"
	2-1/2	30	550				
WCSP-3642J/V	3	36	660	7.6/4	3/4	7/8"	7/8"
	3-1/2	42	850				
WCSP-4860J/V	4	48	880	10.6/5.4	3/4	7/8"	7/8"
	5	60	1150				

* Capacities based on 45°F entering water temperature at 5 G.P.M.

Pre-insulated two-inch flexible ducts can weave through existing walls, ceilings, and floors for discreet, nearly invisible installations that seamlessly blend with any decor.

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Intertek

SSIC

Integrated Control

The SpacePak System Interface Control (SSIC) takes inputs from up to five air handlers and outputs the system signals to the chiller, boiler and heat pump. Air Handlers receive their calls from their respective thermostats and outputs a heating or cooling call to the SSIC. Based on these demands, the SSIC determines how to operate the system and optimize performance while maximizing savings and comfort.

Standard Features

- Outdoor Air Temperature Sensor & Boiler Switch Over
- Water Temperature Sensor
- Buffer Tank Sensor

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Solstice Stand

Heat Pump Mount

SpacePak's new Solstice Stand provides a stable and affordable platform to mount your Solstice heat pump equipment on, safely and securely with no tip-overs. Elevating valuable equipment protects outdoor units from damage caused by lawn mowers, pets, snow and flooding. Stands also allow for ease of installation, maintenance and service.

Features

- Stabilizes and secures units
- 12" height off the ground
- 30.5" width X 38" depth
- 14-gauge square steel tubing
- 11-gauge steel cross rails
- Holds up to 400 lbs.
- 8 points of anti-vibration isolation
- (4) 50 Durometer rubber foot pads
- (4) anti-vibration isolation washers
- Powder coated
- All necessary hardware included

HighWall Fan Coil Low Temperature

Hydronic Heating and Cooling

HighWall fan coils are the perfect indoor complement to our Solstice heat pumps. HighWall fan coils provide optimum heating and cooling in one classic design. HighWall fan coils are designed for higher volume flow for primary heating in colder climates. All HighWall fan coils feature high efficiency EC motors with step-less speed modulation which operate from 50-70% more efficient than traditional on/off motors.

Features

- Heating / Cooling Operation
- Hydronic Based - No Refrigerant
- High Efficiency EC Motor w/Step-Less Speed Modulation
- Auto-Swing Damper for Uniform Air Distribution
- Whisper Quiet Operation (33-58 dB)
- Stainless Steel Flexible Hose Connections
- LED Display / Remote Control
- Can Operate with Water Temperatures as Low as 120°F for Heating and as High as 50°F for Cooling
- 5-Year Warranty for Certified Contractors

Specifications

Model	Output (BTU/hr)						Dimensional Data			Ship Wt. (lbs)
	Heating			Cooling						
	Entering Water Temperature									
	120°F	140°F	160°F*	45°F	47°F	50°F	Length	Width	Height	
HW-06-ECM	8123	11331	14266	7300	6416	5085	34-7/16"	8-2/3"	11-13/16"	28
HW-15-ECM	11843	16553	20853	10614	9420	7475				30
HW-18-ECM	14641	20444	25734	13106	11638	9249				32

* 160°F is max water temp. Applying higher can cause damage to unit.

ThinWall Fan Coil Low Temperature

Hydronic Heating and Cooling

ThinWall fan coils are the ultra-sleek alternative to HighWall fan coils or can be used in conjunction with a HighWall unit for optimum flexibility. Perfectly conditioned air is quietly distributed through a cross-flow blower configuration with integrated air-guiding technology. ThinWall units offer versatility for both heating and cooling while operating up to 30% more efficient than traditional emitters.

Features

- Heating / Cooling Operation
- Hydronic Based - No Refrigerant
- Whisper Quiet, Modern Space-Saving Design
- Cross-Flow Blower Configuration with Integrated Airguiding Technology
- ECM Blower
- Touch Screen Display/Remote Control
- Can Operate with Water Temperatures as Low as 120°F for Heating and as High as 50°F for Cooling
- 5-Year Warranty for Certified Contractors

Specifications

Model	Output (BTU/hr)						Dimensional Data			Ship Wt. (lbs)
	Heating			Cooling						
	Entering Water Temperature									
	120°F	140°F	160°F*	45°F	48°F	50°F	Length	Width	Height	
HTW-87	4600	6936	8700	3400	2846	2505	28"	5-1/4"	24-1/4"	41
HTW-135	8500	10710	13500	6500	5442	4789	35.25"			52
HTW-196	11400	15606	19600	8500	7116	6262	43"			60

* 160°F is max water temp. Applying higher can cause damage to unit.

Buffer Tanks

Hot and Chilled Water

SpacePak stainless steel hydronic buffer tanks are used as both hydraulic separators and hydronic buffer tanks.

As a hydraulic separator, buffer tanks separate the energy source loop (heat pump/boiler) from the hydronic flow in the distribution system (air handlers/ emitters). Hydraulic separation is used primarily in systems where flow rates from the source to the distribution vary or with applications utilizing variable speed pumps. The heating or cooling source can be hydraulically decoupled from the distribution system.

Buffer tank's are used as hydronic buffer tanks in systems having several low BTU cooling or heating loads calling at different times or systems operating below the design load condition.

Specifications

Model		BT13-H	BT26-H	BT40-H	BT80-H
Height	Inches	29-1/6	45	60	64-1/8
Diameter	Inches	18-1/2	18-1/2	18-1/2	23-5/8
Capacity	US Gal.	13	26	40	80
Max Water Flow	GPM	36	36	36	48
Ship Weight	lbs.	40	84	104	130
Empty Weight	lbs.	38	77	97	125
Full Weight	lbs.	148	304	446	805
Min Circuit Ampacity	Amps	15	30	30	30

Features

- Hydronic Thermal Storage for Hot and Chilled Water
- Encouraged for Most Systems Using SpacePak Solstice Heat Pumps
- Offered in 13, 26, 40, and 80 Gallon Capacities
- Inner Tank 304 Stainless, Outer Galvanized Steel Jacket
- Polyurethane Resin Foam with R12 Insulation Valve
- Four-Port Open Tank Design
- Electric Elements Standard
- Standard 10-Year Warranty

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Certification Training, Extended Warranty, Sales Support

SpacePak Offers Factory Authorized Trainings for Certification on:

- Small Duct High Velocity Equipment
- Air-to-Water Heat Pump & Hydronic Equipment

Certification Training Methods:

- Online Webinar Training
- Local Field Training
- Corporate Headquarter Factory Training

Benefits of Becoming a SpacePak Certified Contractor:

- Local Leads
- Listed on SpacePak Website
- Pre-Sale Application Support and Load Calculations
- Marketing Support
- Extended Warranty

Extended Warranty for SpacePak Certified Contractors as Follows:

- **Inverter Air-to-Water Heat Pumps**
  Five (5) year parts and a ten (10) year compressor warranty
- **Small Duct High Velocity, Hydronic Fan Coils and Associated Equipment**
  Five (5) year parts warranty
- **Buffer Tanks**
  Standard Ten (10) year warranty

To Be Eligible for Extended Warranties:

- Project/equipment must be registered via the Product Registration portal on the SpacePak website.
- Installation must have been performed by a SpacePak Certified Contractor in good standing at the time of installation.

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Contact your local SpacePak Manufacturer's Representative!

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