A.O. Smith®
Innovation has a name.

Our Heat Pumps Think!

Discover the Intelligent Adaptive Technology.

A LEGACY OF INNOVATING THE IMPOSSIBLE

Our humble beginnings root back to 1874 with a small machine workshop and today, we are the leaders in manufacturing residential and commercial water heating products. Headquartered in Milwaukee, Wisconsin, today our 11,400+ employee team is active in the USA, Canada, Mexico, China, India, the UK, the Netherlands, and Turkey with our sales and distribution networks active in 60+ countries. Over the years, we've patented the glass-lined water heater and our line of products features are the best-known brands in North America, China, and India.

We have a team of experts, who have made us one of the leaders in the global water technology sector, with a focus on new product development, global expansion, strategic acquisitions and partnerships. No wonder, our brand tagline says 'Innovation has a name.'

In India, our journey began in 2008 and since then we've been at the forefront of innovations. We established an impressive manufacturing facility in June 2010 at Harohalli, Bengaluru. And from then there has been no looking back.

A. O. Smith Corporation, a name that has become synonymous with trust and excellence, has its roots in one man's dreams, Charles Jeremiah Smith. Headquartered in Milwaukee, Wisconsin, USA, A. O. Smith has become the global leader in the manufacturing and marketing of residential and commercial water heating and water treatment equipment.

The 149-year long legacy of innovative technology and energy-efficient solutions has resulted in an array of state-of-the-art products that have made their mark the world over.

A GLOBAL PRESENCE. GLOBAL PERSPECTIVE.

A. O. Smith has manufacturing operations in the United States, Canada, Mexico, China, India and Europe and a sales and distribution network that covers over 60 countries around the globe.

CORPORATE OFFICES

Milwaukee, Wisconsin

Nanjing, China

Hong Kong, SAR

NORTH AMERICA

Appleton, Wisconsin

Ashland City, Tennessee

Austin, Texas

Charlotte, North Carolina

Ciudad Juárez, Chihuahua

Cookeville, Tennessee

El Paso, Texas

Fergus, Ontario

Florence, Kentucky

Franklin, Tennessee

Groveport, Ohio

Haltom City, Texas

Johnson City, Tennessee

Knoxville, Tennessee

Lebanon, Tennessee

McBee, South Carolina

Montréal, Québec

Nashville, Tennessee

Phillipsburg, Kansas

Pottstown, Pennsylvania

Rancho Cucamonga, California

Stratford, Ontario

EUROPE & MIDDLE EAST

Banbury, United Kingdom

Bourges, France

Dubai, United Arab Emirates

Istanbul, Turkey

Veldhoven, the Netherlands

ASIA & PACIFIC

Bengaluru, India

Hanoi, Vietnam

Nanjing, China

Research and Development

The onus of research falls on the Corporate Technology Centre in Milwaukee. With engineering centres in U.S., Canada, China, Europe and India with 500 engineers and technicians, these facilities focus on designing, developing and testing new water heating technologies and products.

A. O. SMITH - HISTORY TIMELINE

1874 - 1903: The Formative Years:

1874: Charles Jeremiah Smith establishes C. J. Smith - Machinist, a small machine shop in Milwaukee, Wisconsin, producing metal parts for baby carriages and other hardware specialties. He later changed the name to C. J. Smith and Sons, after three of his sons joined the firm.

1889: C. J. Smith and Sons enter the bicycle industry by introducing the concept of forming steel tubing from sheet metal, an innovation was later employed in making bicycle frames. By 1895, the Company was the largest U.S. bicycle parts manufacturer, eventually becoming the largest in the world.

1899: Arthur O. Smith, a son of the founder, develops the world's first pressed steel automobile frame, a lighter, more cost-effective alternative to existing frames.

1902: C. J. Smith and Sons receives its first order of auto frames from Peerless Car Company, with others from Cadillac, Packard and Oldsmobile to follow.

1904 - 1924 Entering the Auto Industry

1904: Arthur O. Smith incorporates A. O. Smith Company in Milwaukee.

1906: Henry Ford orders 10,000 steel automobile frames, leading the company to develop the world's first mass production process for assembling frames. Within four years, A. O. Smith is North America's largest frame manufacturer.

1914: A. O. Smith introduces the Smith Motor Wheel, a gasoline-powered device for bicycles. Three years later, it developed the Smith Flyer, known as "the world's first sports car." This technology was eventually sold to Milwaukee's Briggs & Stratton Company.

1918: As part of U.S. war effort, A. O. Smith engineers develop a coated welding rod, a breakthrough that influenced the development of arc welding as a mass production method. The Company remained in the welding products business until 1965.

1921: Under the direction of L. R. "Ray" Smith, A. O. Smith unveils "the Mechanical Marvel," the world's first fully-automated automobile frame assembly plant. Capable of making a frame every eight seconds (10,000 frames a day), the plant operated until 1958.

1925 - 1940: Innovation & Expansion

1925: A. O. Smith introduces the first arc-welded, high-pressure vessel used to refine oil. The Company produced pressure vessels for a wide variety of chemical processing, refinery and related applications through 1963.

1927: A. O. Smith engineers perfect a method of economically forming and welding large-diameter steel-lined pipe. This new mass production technique was instrumental in launching the natural gas industry and transcontinental oil pipeline business. The Company was a leading supplier of line pipe until it exited the business in 1972.

A. O. SMITH - HISTORY TIMELINE

1933: Expanding on earlier research in the process of fusing glass to steel, A. O. Smith introduces the first large, single-piece glass-lined brewery tank. Over the next 32 years, the Company produced more than 11,000 glass-lined brewery tanks.

1936: A. O. Smith patents the process of glass-lining a water heater tank. This concept quickly became the standard of the industry, making hot water an affordable convenience for homeowners. The Company began producing residential water heaters three years later, but shifted all production to war-time use during World War II.

1940: Extending its reach in the oil field, A. O. Smith acquires Los Angeles, California-based Sawyer Electric, a manufacturer of electric motors, including a pump motor that could be used in oil well applications.

1941 - 1971: War and Post-War Boom

1942: As part of the war effort, A. O. Smith begins producing bomb casings, aircraft propellers and landing gear, torpedo air flasks and other material. By 1945, it had built 4.5 million bombs, 16,750 sets of landing gear and 46,700 propeller blades, as well as nose frames for the B-25 bomber, water heaters for military barracks, jeep frames and components for the atomic bomb project.

1948: A. O. Smith acquires Toledo, Ohio-based Burkay Company and enters the market for coil-type “instantaneous” commercial water heaters, leading to the first glass-lined commercial water heater five years later.

1949: A. O. Smith introduces the Harvestore structure, a glass-fused-to-steel silo targeted at dairy and livestock operations. Over the next 50 years, A. O. Smith installs more than 70,000 structures on farms throughout the world.

1950: A. O. Smith acquires Dayton, Ohio-based Whirl-A-Way Motors and consolidates its electric motor manufacturing operations.

1953: A. O. Smith acquires Glascote Products, Inc., expanding its vessel manufacturing capabilities. Combined with its existing water heater, brewery tank and related businesses, the acquisition makes A. O. Smith the world’s largest manufacturer of glass-coated steel products.

1954: A. O. Smith introduces the first glass-lined commercial water heater, the Burkay B-65.

1961: A. O. Smith opens a commercial water heater and boiler plant in Stratford, Ontario, Canada, its first water heater plant outside the U.S.

1972 - 2008: Global Growth & Restructuring

1972: A. O. Smith opens its first European operations in Veldhoven, the Netherlands. Originally a sales office serving Europe and the Middle East, the facility expanded to include assembly and eventually fabrication of water heaters.

1974: A. O. Smith celebrates its 100th anniversary.
The Company introduces its Conservationist line of residential water heaters.

1982: A. O. Smith produces its 100-millionth passenger car frame.

1984: A. O. Smith opens its first electric motor assembly operations in Ciudad Juárez and Ciudad Acuna, Mexico.

A. O. SMITH - HISTORY TIMELINE

1986: A. O. Smith substantially increases the size and scope of its electric motor business by acquiring Westinghouse's small motors division.

1988: Arthur and Ray Smith inducted into the Automotive Hall of Fame, the first father and son to earn the honor.

1995: A. O. Smith enters the China market with three joint ventures: automotive products, fiberglass oilfield pipe and residential water heaters.

1997: After 98 years, A. O. Smith exits the automotive industry, selling its U.S. business and a Mexican subsidiary to Tower Automotive.
The Company makes the first of a series of strategic acquisitions with the purchase of UPPCO, Inc., followed by General Electric's domestic compressor business (1998) and MagneTek's global motor operations (1999).

1998: Two years after creating a water heater joint venture in China, A. O. Smith buys out its partner and opens a new plant in Nanjing.

2001: A. O. Smith acquires State Industries, Inc., nearly doubling the size of its water heater business. The acquisition enables the Company to enter the retail market segment for the first time in more than 40 years.
The Company acquires Shenzhen Speeda Industries, Ltd., the first of four strategic electric motor acquisitions in China.

2006: A. O. Smith completes the largest acquisition in company history, purchasing Canadian water heater and building products manufacturer GSW Inc. and American Water Heater Company. The addition of the American, Whirlpool, GSW and John Wood brands make A. O. Smith the industry leader in the North America.

2008: A. O. Smith begins to market residential and commercial water heaters in India as one of the first U.S. companies in the market.

2009 - present: Focus on Water Technology

2009: A. O. Smith enters the water purification industry with a new venture: A. O. Smith (Shanghai) Water Treatment Products Co. Ltd. The new company supplies reverse osmosis water treatment and water filtration products to the China residential and commercial markets, as well as export markets throughout the world.

2010: A. O. Smith opens a 76,000 ft2 residential water heater manufacturing plant in Bengaluru, India. The Company acquires Takagi Industrial's North American operations as part of a joint venture to market and manufacture tankless water heaters in North America.

2011: A. O. Smith embarks on strategy to become a leading global water technology company. The Company sells its electric motor business to Regal Beloit Corp. and acquires Lochinvar Corp., a Lebanon, Tennessee-based manufacturer of high efficiency condensing residential and commercial boilers for hot water and hydronic heating applications.

2013: As a founding partner, A. O. Smith joins The Water Council in opening its Global Water Center, a physical cornerstone from which to accelerate Milwaukee as the world's leading water technology hub.

2016: A. O. Smith enters the North American water treatment market with the acquisition of Aquasana, an Austin, Texas-based manufacturer of reverse osmosis, countertop, under-the-counter and on-the-go water filtration products.

2017: A. O. Smith expands its North American water treatment presence with the acquisition of Groveport, Ohio-based Hague Quality Water, a manufacturer of a comprehensive line of water softener products sold through retail and dealer channels.
The Company is named to the S&P 500 Index.

2018: A. O. Smith unveils its new L. R. Smith Corporate Technology Center in Milwaukee, supporting advanced research and development in potable and hydronic water heating, water treatment and air purification. The Company reestablishes itself as a retail brand, as the leading water heating and treating product line in 2,200 Lowe's home improvement stores.

2019: A. O. Smith acquires Appleton, Wisconsin-based Water-Right, Inc., a water quality solutions provider with a complete line of residential and commercial products and systems for a series of applications.
A decade after launching its strategy to become a leading global water technology company, A. O. Smith is ranked 11 in Harvard Business Review's "Top 20 Business Transformations of the Last Decade."

2021: A. O. Smith issues a public commitment to reducing its global greenhouse gas emissions 10% by 2025.
The Company continues to grow its North American business in water heating, through acquisition of Montreal, Quebec-based Giant Factories, Inc., and in water treatment, by purchasing Pottstown, Pennsylvania-based Master Water Conditioning Corp.

THE INDIAN STORY OF THE WORLD'S BEST WATER HEATERS

Growing in Leaps and Bounds

As a premium brand, A. O. Smith manufactures high-tech, energy-efficient water heaters and is known for its quick after-sales service.

In 2006, A. O. Smith became the first U.S. company to enter the residential water heater market in India. With a 76,000 sq. ft. manufacturing plant in the KIADB Industrial Area, Harohalli, Bengaluru in 2010, A. O. Smith added another 150,000 sq. ft. space in 2013.

Today, in India, A. O. Smith is amongst the leading water heater brands, redefining the market with its path-breaking innovations across its products range.

2008
Started operations in India

2010
Factory set up in Harohalli, Bengaluru 2010 - Water Heater Manufacturing begins

2015
Entry in Water Purification - Pioneers in introducing the Hot Water feature

2021
Launched industry-defining products in Water Heaters and Water Purifier series in India

ELITE CLIENT
P R O F I L E

OUR CLIENTELE - PRESTIGIOUS AND DIVERSE

For over 70 years, our innovative products have been the choice of business owners as well as property managers in numerous industries across the world. While the wide range of products meets our patrons' specific needs, the unmatched quality and energy-efficient solutions provide complete satisfaction. What's more, the world-class service comes up with optimal solutions and take care of issues methodically.

Hospitals



Institutions



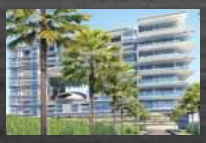
Workspace



Industrial



Luxury Residential


Hotels



OUR CLIENT LIST

Hotel

Formule 1, Bangalore
Hilton Garden Inn, Trivandrum
Parijatha Gateway, Bangalore
Park Plaza, Bangalore
Veeranjaneya, Vizag
Konark, Vizag
Munnar Blooms, Cochin
Pathros Hotel, Cochin
JG Hotels, Coimbatore
Hyacinth Hotel, Trivandrum
Hotel Marine Plaza, Mumbai
Hotel Aureole, Mumbai
Hotel Nest, Ahmedabad
Hotel Campal, Goa
Hotel Ashoka, Nagpur
Hotel Fern, Satara
Hotel Fern, Ahmedabad
Promenade Hospitality Pvt. Ltd, Baroda
Hotel Mango, Raipur
Highland Resort, Lonavla
Hotel Baba Inn, Raipur
Onyx Hotels Pvt. Ltd., Bharuch, Gujarat
ITC Fortune, Ahmedabad
Hotel Hillock, Mount Abu
Hotel Merridean, Banaras
Mapple, New Delhi
A Hotel, Ludhiana
Hotel Mall Palace, Mussorrie
Fortune Park Orange, Gurgaon
ITC Suvoy, Mussorrie
Golden Tulip, Kufri/Shimla
Khem Villas, Ranthambhore
Manideepa Hotel, Bhutan
The Dream Palace, Bulandshehar
Radisson Hotel, Coimbatore
ARYABANGI BUILDERS, Cochin
Zion Hotel, Shimla
Hary Hotel, Jaipur

Hotel

Central Heritage, Darjeeling
Nirvana, Darjeeling
Lebua Resort, Lucknow
ITC HPCA, Dharamshala
Sarovar Portico, Shimla
Hotel Urbanpod, Mumbai
Fortune Landmark, Ahmedabad
Double Tree by Hilton, Ahmedabad
Holiday Inn, Goa
Marine Plaza, Mumbai
Fern - Vadodara, Satara, Mumbai
Novotel, Ahmedabad
Wow, Indore
Radisson, Mumbai
Radisson, Bhopal
Ivy, Raipur
Ramee Grand, Pune
TAJ Vivanta
Radisson, Coimbatore
HI Stay, Hyderabad
Hampshire, Hyderabad
Grand Bee Hotel, Bangalore
LILAC1 Hotel, Bangalore
Shibulals Hotel, Bangalore
Metro View Hotel, Bangalore
Radisson CP, Delhi
Taj Ambassador, Delhi
Taj Jim Corbett
Taj, Rishikesh
ITC Welcome Chail, Shimla
ITC Welcome, Mashobra
ITC Welcome, Panchkula
Royal Orchid Fort Resort, Mussoorie
Ramada, Kapurthala
Radisson, Kumbhalgarh
ITC Welcome, Dharamshala
Raas, Jodhpur
Raas, Devigarh
Clarks Inn, Aligarh

Hospitals

Fortis Hospital, Bangalore
Rajagiri Hospital, Bangalore
Fernandes Hospital, Hyderabad
Jain Hospital, Bangalore
Chazikkad Hosptal, Idukki
Sahyadri hospital, Pune
Cross Hospital, Bhopal
Kamalnayan Bajaj Hospital, Aurangabad
Care Hospital, Hyderabad
KIMS Hospital, Hyderabad
Medical Hospital, Kolkata
DMC Hospital, Ludhiana
Sterling, Ahmedabad
Suasth, Mumbai
Sahyadri, Pune
Red Cross, Bhopal
Fortis, Bangalore
Care Hospital
KIMS, Hyderabad
Fernandes Hospital
Vydehi Hospital
Vikram Hospital
DMC Hospital, Ludhiana
Yatharth Hospital Greater, Noida
Fortis, Faridabad
SSB Hospital, Faridabad
Tagore Hospital, Jallandar
Medica Hospital, Kolkata
Jiva Healthcare, Faridabad

OUR CLIENT LIST

Apartment

Total Environment, Bangalore
Indraprastha Schon, Bangalore
Shanthi Builders - CORAL, Chennai
Solitaire -III / IV / V, Pune
Ahuja Towers, Mumbai
Antelia, Mumbai
Godrej Platina, Bangalore
Ceebroa - One 74, Chennai
KMB - La Palazo, Bangalore
Panchshil Projects, Pune
Acron Projects, Goa
Ahuja Towers, Mumbai
The Arc by Acropolis, Pune
North One Projects, Ahmedabad
Manav Group Projects, Pune
Total Environment, Bangalore
Appaswamy, Chennai
Cebros, Chennai
May Fair Villas, Hyderabad
My Scape Villa, Hyderabad
Sushiee Eden Garden, Hyderabad
Goldfish Villa, Hyderabad
Krinss Villa, Hyderabad
AVM Arise, Chennai
My Home Villas, Hyderabad
KMB Estates, Bangalore
Sobha International City, Gurgaon
DLF Camellias, Gurugram
Gulshan Dynasty, Noida
Atmosphere, Kolkata
ITC One, Colombo
Max Estates, Dehradun
Casa Grande, Chennai
Venetian Villas, Ahmedabad
Sobha Internationa City, Gurgaon
Hero House, New Delhi
Adani House, New Delhi
RMZ House, Bangalore
MAYFAIR, Hyderabad
MYSCAPE, Hyderabad
NORTH STAR , Hyderabad
SUSHEE REALITY, Hyderabad
PRIME MERIDIAN HOMES, Cochin
Acron Group, Goa
Mokksh, Nasik

Institutes

Vydehi Medical College, Bangalore
New Era Highschool, Panchgani
LKM School, Panvel
IIM Kashipur, Kashipur
Selaqui International, Dehradun
Kunwar Global School, Lucknow
Samhitha Academy, Bangalore
PES Institute, Bangalore
Lokmanya Multipurpose Co. Society, Belgaum
Swami Yoganand Charitable Trust, Borsad, Gujarat
Jalsa Banquet, Indore
Sanjivani Group of Institutes, Ahmednagar
Flame Univerity, Pune
Indian Railways, Pune
Presidency University, Bangalore
PES University, Bangalore
Arvind International School, Kunigal
Vydehi Medical College, Bangalore
Kuvempu University, Shimogga
Samhitha Academy
Sri Venkateshwara College, Bangalore
Stone Hill International School, Bangalore
Presidency University, Mangalore
Pegasus Military Camp, Bangalore
IIM, Kashipur
IIM, Udaipur
Bennett University Greater, Noida
Doon School, Dehradun
Shiv Nadar School, Faridabad
Vydehi Medical College, Bangalore
New Era Highschool, Panchgani
LKM School, Panvel
IIM Kashipur, Kashipur
Selaqui International, Dehradun
Kunwar Global School, Lucknow
Samhitha Academy, Bangalore
PES Institute, Bangalore
Lokmanya Multipurpose Co. Society, Belgaum
Swami Yoganand Charitable Trust, Borsad, Gujarat
Jalsa Banquet, Indore

OUR CLIENT LIST

Resort

Leonia Resort, Hyderabad

Punnamada Lake Resort, Cochin

Tamara Resorts, Coorg

Tamara Resorts, Coorg

IBNI Resorts, Coorg

Kofi Land, Idukki

Shambala Hotels, Chick Mangalore

Grand Resort, Mahabaleshwar

Savoy Villege, Mahabaleshwar

Cresent Resort & Spa, Sehore, MP

Hotel Prospect, Panchgani

Shalai - The Cliff Resort, Goa

Taj, Gir

Valencia, Udaipur

Neonz, Anand

Grand, Mahabaleshwar

Taj Aravali

Aparna Western Meadows

Jublie Hills International Centre club

Deccan Vlley Resort, Hyderabad

Tamara Resort, Coorg & Kerala

Himalyan Resort, Kasol

Lebua, Jim Corbett

Amatra Resort, Jim Corbett

Earls Court, Nainital

Delhi Gymkhana Club

Industrial / Commercial

Syngene International, Bangalore

Honeywell, Bangalore

Toyota Kirloskar, Bangalore

Suretex Prohylactics, Bangalore

Master Fluid, Pune

Barry Callebow India Pvt Ltd, Mumbai

Howe Engg. Projects (I) Pvt. Ltd., Mundra, Gujarat

Boeing India, Nagpur

ONGC, Mumbai

Nerolac Paints

Toto, Gujarat

Baclays, Pune

MasterFluids, Pune

BIOCON, bangalore

Mylan Labrotaries, Bangalore

Other

Fitness First, Delhi/Gurgaon

Gold Gym, Pune

Airoli Sports Association, Navi Mumbai

Rajagiri Hospital, Bangalore

Namak Resort, Aamby Valley

McDonalds, New Delhi

GIFT city club, Gandhinagar

Poona Club, Pune

Rajpath Club, Ahmedabad

Rani Kothi Banquet, Nagpur

Roman Park Wedding Destination, Durg

Wipro, Bangalore

Google, Gurugram & Hyderabad

Cognizant, Bangalore

JP Morgan, Hyderabad

Facebook, Hyderabad

Nvidia, Bangalore

Infosys, Chennai

Google, Gurugram

HOW DO HEAT PUMP WATER HEATERS WORK?

The technology inside the heat pump is similar to any domestic refrigerator, which uses a vapour compression cycle. The main components in the heat pump are the compressor, the expansion valve and two heat exchangers (an evaporator and a condenser).
The mechanism is such that heat pumps consume far lesser electricity compared to any other type of water heater.

Working of the Heat Pump

Step-1 Refrigerant in the evaporator is colder than the heat source. This causes the heat to move from the heat source (in this case the outside air) to the refrigerant, which then evaporates.

Step-2 This vapour moves to the compressor and reaches a higher temperature and pressure.

Step-3 The hot vapour now enters the condenser and gives off heat as it condenses.

Step-4 The refrigerant then moves to the expansion valve, reduces the temperature and pressure, and returns to the evaporator.

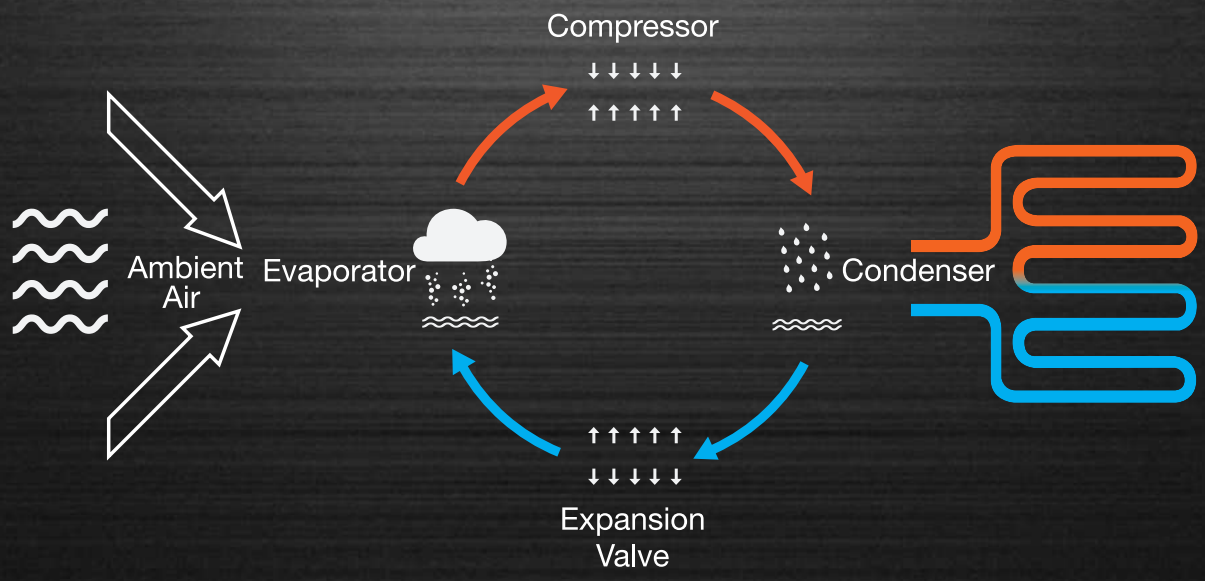
Benefits

- Saves up to 75% on heating costs
- Quick payback & ROI
- Hot water assurance round the year
- Longest product life
- Reduced carbon emissions
- Silent operations
- Negligible maintenance costs

Common Applications

- Hotels
- Resorts
- Serviced Apartments
- Hospitals
- Hostels (School & College)
- Restaurants & Kitchens
- Manufacturing Facilities

Heat Pump



A. O. SMITH HEAT PUMP BENEFITS

AES

The Intelligent Adaptive Energy Saving technology analyzes the water usage pattern to automatically heat up the water and optimize energy consumption

LED Display with Self Diagnosis

Real-time display of temperature control, timers and error code for a trouble-free service

Multiple Heating Mode

User can choose between Efficiency, Hybrid Turbo, Max and Instant Heating Mode

Blue Diamond® Glass Coating

Corresponds to longer life to your tank by its corrosion resistance and reduced scaling accumulation technology

High Performance

Can achieve up to 65°C in heat pump mode

Absolutely Safe
The Power of 7

Safety features to ensure the protection of the Heat Pump under all conditions:

1. Compressor overheating discharge protection
2. Abnormal operation protection (Relay and electronic expansion valve)
3. High & low voltage protection
4. Refrigerant leakage protection
5. High water temperature protection (Temperature sensor)
6. High-temperature limit protection switch (ECO switch)
7. Temperature & pressure relief valve

A.O. Smith
Innovation has a name.

HPW Series

Air to Water Heat Pump

Storage Capacity - 60 & 80 litres

HPW

Presenting the HPW Series - Smartly designed wall mounted unit to give a premium hot water bathing experience with the new age heat pump technology. It is designed to be suitable for Domestic Applications, Resorts/Villas and Apartments. With the pathbreaking technology, that pulls heat from the environment, it is no surprise that our heat pumps reduce the water heating costs significantly, reducing greenhouse emissions, thus contributing to a greener world.

Smarter way to heat water

- **AES Technology** – Intelligent Adaptive Energy Saving technology analyses the water usage patterns to automatically heat up the water and optimize energy consumption
- **Wired Digital Control** – Smarter way to control heating
- **Smart Modes** – Enables you to customize as per your need. Three modes - Efficiency, Hybrid and Electric

Sensitive to the environment

- **Heating that saves energy** – Reduced energy consumption Up to 70% by extracting heat from the atmosphere to heat up the water
- **COP** – Coefficient of performance is up to 2.6 enabling efficient heating
- **R134a Green Refrigerant** – Controls the greenhouse gas emission, thus contributing to a greener world

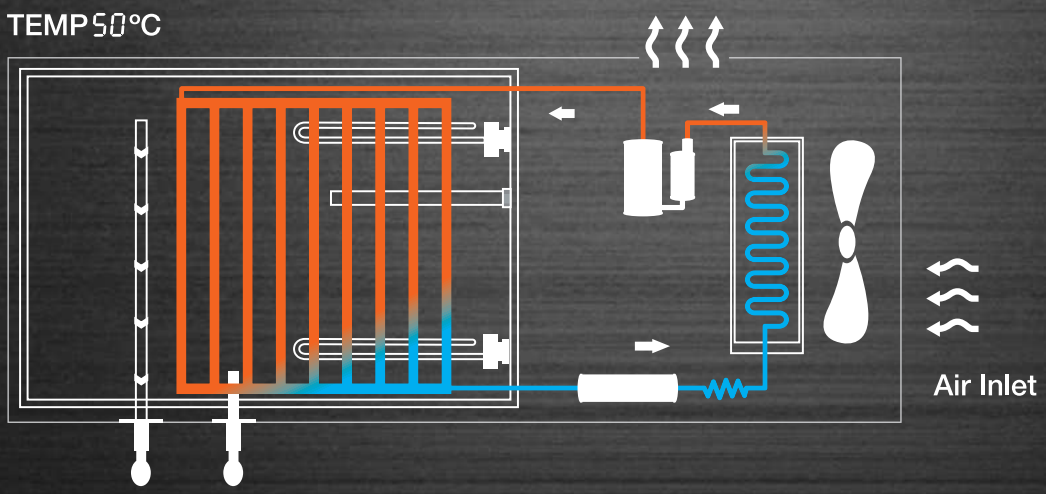
Absolutely safe for you

- 7 Safety Protection
  - High and Low voltage protection
  - High temperature limit protection switch (Eco switch)
  - High water temperature protection (Temperature sensor)
  - Refrigerant leakage protection
  - Compressor overheating discharge protection
  - Abnormal operation Protection (Relay and Electronic expansion valve)
  - Temperature and pressure relief valve

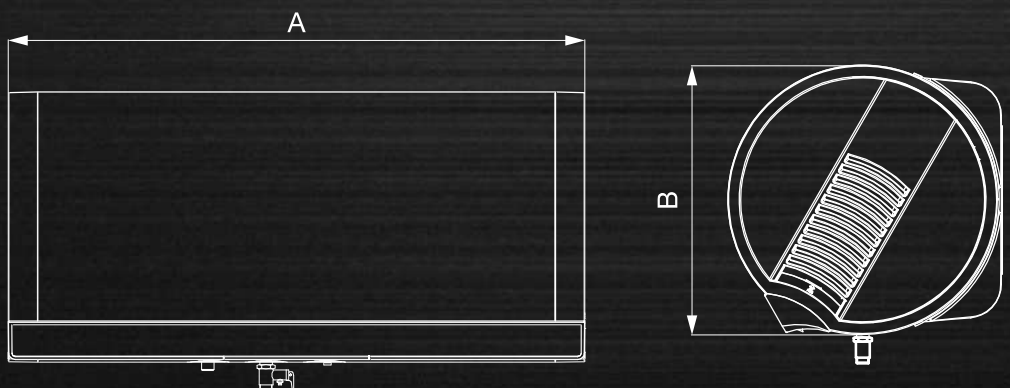
Technical Specification

MODEL	HPW-60A2	HPW-80A2
Rated volume [L]	60	80
Rated voltage [V] / Rated frequency [Hz]	220 / 50	220 / 50
Rated input power [W] / Rated current [A]		
Efficiency mode	200	200
Hybrid turbo mode	2200 / 10	2200 / 10
MAX mode	3000 / 13.7	3000 / 13.7
Heating capacity [W]		
Efficiency mode	540	540
Hybrid turbo mode	2540	2540
MAX mode	3000	3000
Inner tank rated pressure bar	8	8
Range of water temperature [°C]	35-75	35-75
Environment range of energy-saving mode [°C]	Oct-44	Oct-44
Dimensions [A x B] [mm]	837 x 473	992 x 473
Net weight [kg]	42	45

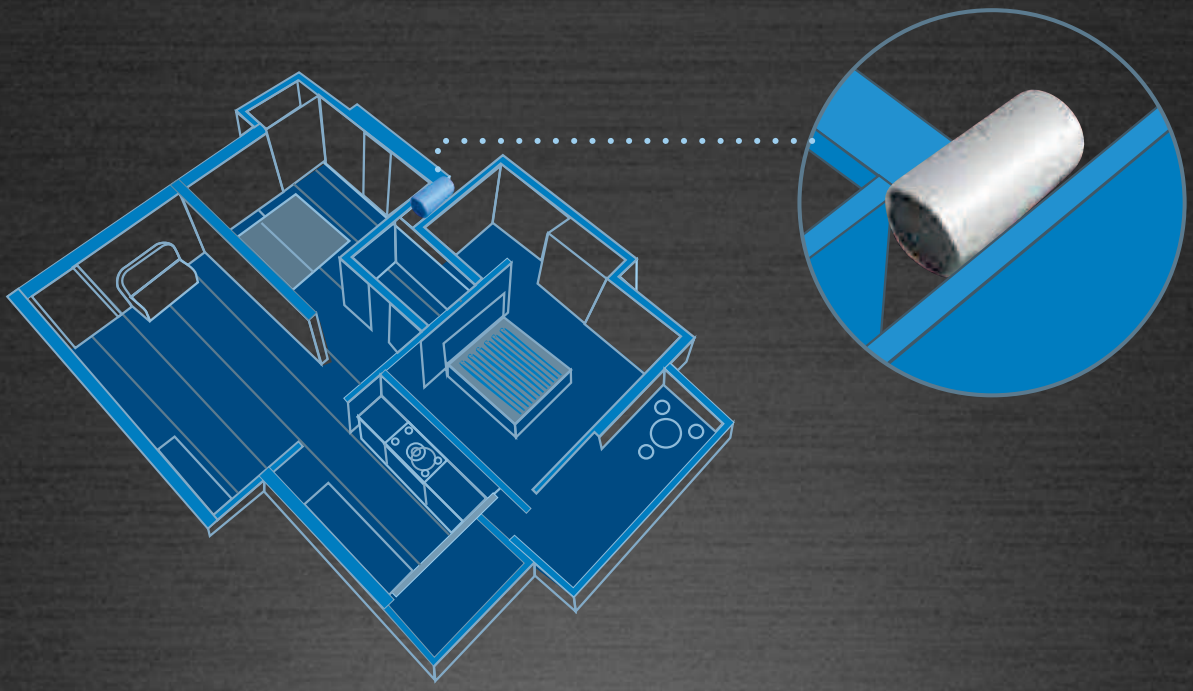
Line Diagram



External Dimensions



Installation Blueprint



A.O. Smith®
Innovation has a name.

CAHP-1.5HP DI

Air to Water Heat Pump

Storage Capacity - 300 & 455 litres

CAHP-1.5 HP

Presenting the CAHP 1.5HP DI Model - Smartly designed to give a premium hot water bathing experience with the new age heat pump technology. It is designed to be suitable for Hotels, Resorts and Villas. With the pathbreaking technology, that pulls heat from the environment, it is no surprise that our heat pumps reduce the water heating costs significantly, reducing greenhouse emissions, thus contributing to a greener world.

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Absolutely safe for you

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  - High temperature limit protection switch (Eco switch)
  - High water temperature protection (Temperature sensor)
  - Refrigerant leakage protection
  - Compressor overheating discharge protection
  - Abnormal operation Protection (Relay and Electronic expansion valve)
  - Temperature and pressure relief valve

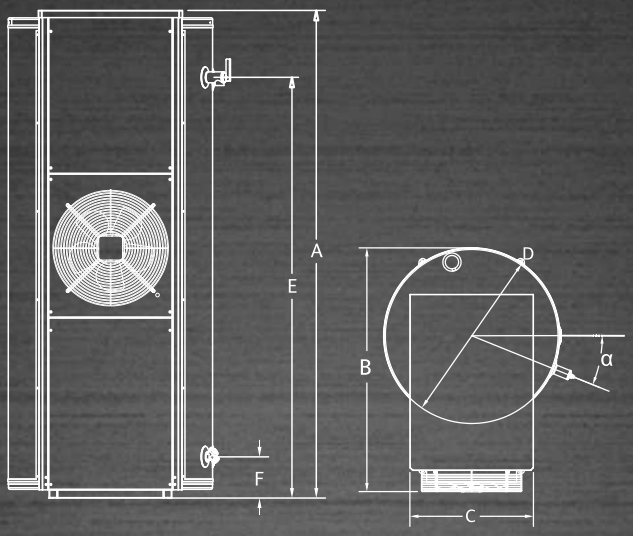
Digital Remote

Technical Specification

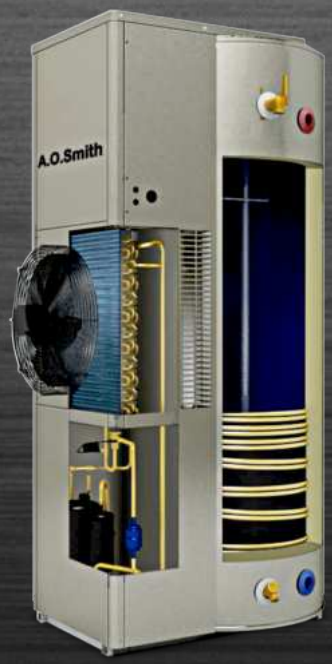
MODEL			CAHP1-5DI-80-6	CAHP1-5D-120-6	CAHP1-5D-120-12
Model Type		/	Outdoor integrated heat pump water heater		
HP Rated Power		W	875		
HP Rated heating capacity		W	3680		
COP		W/W	4.20		
Electrical Heating Capacity		W	6000	6000	12000
Maximum Operation	400V / 3N / 50Hz	A	/	/	37.5
Current	230V / 1N / 50Hz	A	38.7	38.7	71.9
Hot Water Delivering	Efficiency	L/h	105		
Rate (ΔT=30˚c)	High Demand	L/h	277	277	449
Refrigerant		/	R134a		
Refrigerant charge quantity		g	940		
Tank capacity		L	300	455	455
Net Weight		Kg	161	194	194
Operation Weight		Kg	461	649	649
Water Temp in efficiency mode		°C	65		
Operation Temperature Range		°C	37~75		
Ambient Temperature for HP		°C	7~43		
Unit Operation Noise		dB (A)	54		
Air Outlet Noise		dB (A)	58		
Dimensions (LxWxH) mm		mm	910x610x1700	1012x713x1700	1012x713x1700
Anode		/	Aluminum Rod		
Control Mode		/	Led wire Display (Standard 10m, Optional Maxium 20 m)		
Operation Mode		/	Efficiency, High Demand, Standard		
Other Control Functions		/	Timer, Fault Alarming, Water pump controlling, AES HP		
Power Supply Specifications		/	230V~50Hz	230V~50Hz	230|400V 3N~50Hz
Connection Size ~ Inlet/Outlet/T&P Valve		/	NPT 3/4 (Female Thread)		
Drain Valve		/	NPT 3/4 (Female Thread)		

External Dimensions

Total height	A (mm)	/	1700	1700
Tank diameter	B ((mm)	/	610	713
Maximum depth	C (mm)	/	910	1012
Width from the gate	D (mm)	/	503	503
Safety valve Interface height	E (mm)	/	1440	1467
Water inlet height	F (mm)	/	145	144



X-Ray view



A.O.Smith®

A.O. Smith®
Innovation has a name.

CAHP-3HP

Air to Water Heat Pump

Storage Capacity - 450 litres

CAHP-3 HP

Presenting the CAHP 3HP Model - Smartly designed to give a premium hot water bathing experience with the new age heat pump technology. It is designed to be suitable for Residential Apartments, Resorts/Villas and Hospitals. With the pathbreaking technology, that pulls heat from the environment, it is no surprise that our heat pumps reduce the water heating costs significantly, reducing greenhouse emissions, thus contributing to a greener world.

Smarter way to heat water

- **AES Technology** – Intelligent Adaptive Energy Saving technology analyses the water usage patterns to automatically heat up the water and optimize energy consumption
- **Wired Digital Control** – Smarter way to control heating
- **Smart Modes** – Enables you to customize as per your need. Three modes - Efficiency, Hybrid and Electric

Sensitive to the environment

- **Heating that saves energy** – Reduced energy consumption Up to 70% by extracting heat from the atmosphere to heat up the water
- **R134a Green Refrigerant** – Controls the greenhouse gas emission, thus contributing to a greener world

Absolutely safe for you

- 7 Safety Protection
  - High and Low voltage protection
  - High temperature limit protection switch (Eco switch)
  - High water temperature protection (Temperature sensor)
  - Refrigerant leakage protection
  - Compressor overheating discharge protection
  - Abnormal operation Protection (Relay and Electronic expansion valve)
  - Temperature and pressure relief valve

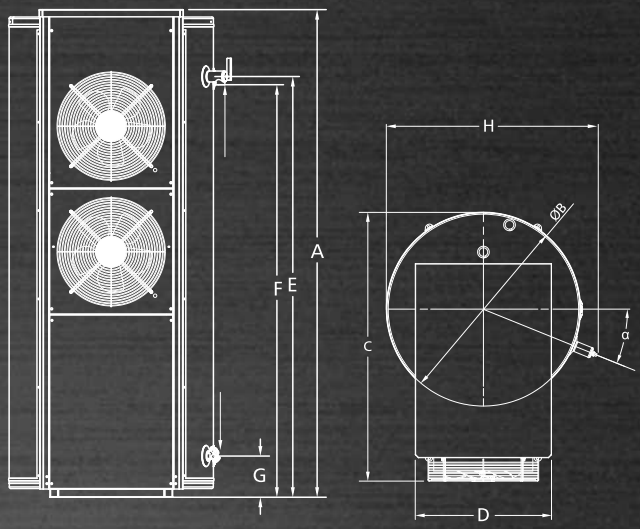
Digital Remote

Technical Specification

MODEL			CAHP3.0-120-12
Model Type		/	Outdoor integrated heat pump water heater
HP Rated Power		kW	2.22
HP Rated heating capacity		kW	8
COP		W/W	3.6
Electrical Heating Capacity		W	12000
Maximum Operation	400V / 3N / 50Hz	A	31.5
Current	230V / 1N / 50Hz	A	78.5
Hot Water Delivering	Efficiency	A	230
Rate (ΔT-30˚c)	High Demand	A	573
Refrigerant		/	R134a
Refrigerant charge quantity		g	1850
Tank capacity		L	455
Net Weight		Kg	229
Operation Weight		Kg	684
Water Temp in efficiency mode		°C	65
Operation Temperature Range		°C	35~75
Ambient Temperature for HP		°C	7~43
Unit Operation Noise		dB (A)	59
Air Outlet Noise		dB (A)	62
Dimensions (LxWxH)		mm	995 x 785 x 1700
Anode		/	Aluminum Rod
Control Mode		/	Led wire Display (Standard 10m, Optional Maxium 20 m)
Operation Mode		/	Efficiency, High Demand, Standard
Other Control Functions		/	Timer, Fault Alarming, Anti freezing, Water pump controlling
Power Supply Specifications		/	230V~50Hz and 400V/3N/50Hz
Connection Size ~ Inlet / Outlet /		/	3/4 Inch (Female Thread) T&P valve / Drain valve

External Dimensions

Total height	A (mm)	/	1770
Tank diameter	B (mm)	/	711
Maximum depth	C (mm)	/	1002
Service panel width	D (mm)	/	600
Relief valve height	E (mm)	/	1476
Water outlet height	F (mm)	/	1468
Water Inlet height	G (mm)	/	153
Maximum width	H (mm)	/	770



X-Ray view

A.O.Smith®

A.O. Smith®
Innovation has a name.

HPI-D Series

Air to Water Heat Pump

Storage Capacity - 150 & 180 litres

HPI-D

Presenting the HPI-D Series - Smartly designed to give a premium hot water bathing experience with the new age heat pump technology. It is designed to be suitable for Domestic Bungalows, Resorts and Cottages. With the pathbreaking technology, that pulls heat from the environment, it is no surprise that our heat pumps reduce the water heating costs by more than 70%, reducing greenhouse emissions drastically.

Smarter way to heat water

- **AES Technology** – Intelligent Adaptive Energy Saving technology analyses the water usage patterns to automatically heat up the water and optimize energy consumption
- **Wired Digital Control** – Smarter way to control heating
- **Smart Modes** – Enables you to customize as per your need. Three modes - Efficiency, Hybrid and Electric

Sensitive to the environment

- **Heating that saves energy** – Reduced energy consumption Up to 70% by extracting heat from the atmosphere to heat up the water
- **R134a Green Refrigerant** – Controls the greenhouse gas emission, thus contributing to a greener world

Absolutely safe for you

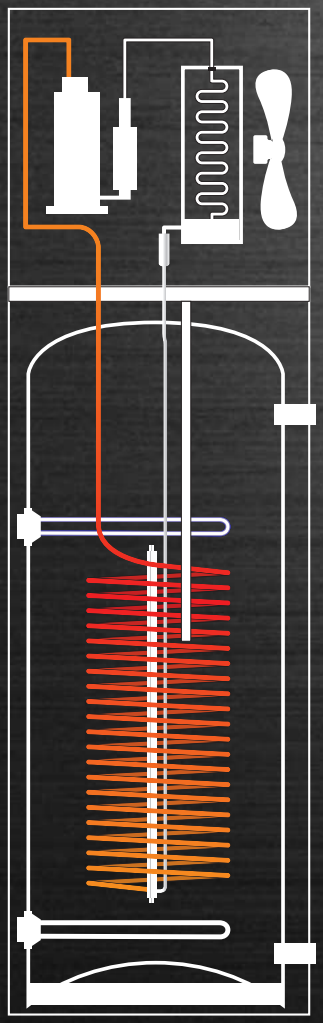
- 7 Safety Protection
  - High and Low voltage protection
  - High temperature limit protection switch (Eco switch)
  - High water temperature protection (Temperature sensor)
  - Refrigerant leakage protection
  - Compressor overheating discharge protection
  - Abnormal operation Protection (Relay and Electronic expansion valve)
  - Temperature and pressure relief valve

Digital Remote

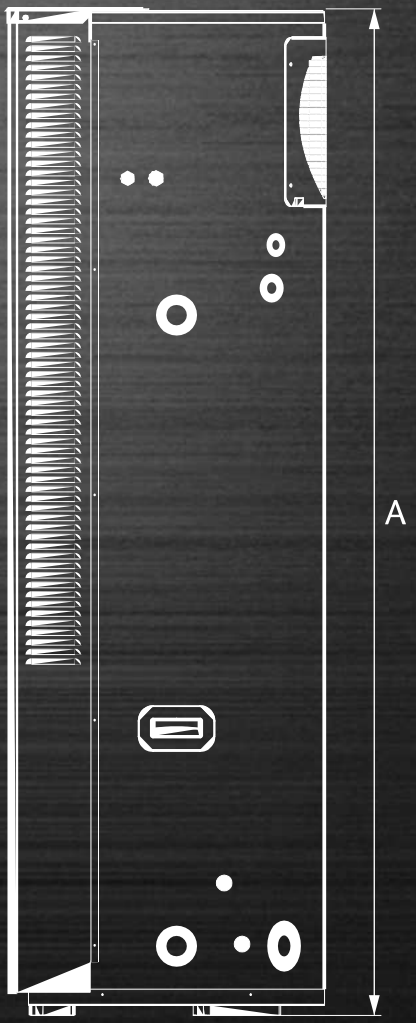
Technical Specification

MODEL	HPI-40DI.0BE	HPI-50DI.0BE
Rated volume [L]	150	180
Voltagene / Frequency [V/Hz]	220 / 50	220 / 50
Rated Input power (Efficiency Mode) (W)	460	460
Rated current (A)	13.6	13.6
Rated output power (Efficiency Mode) [W]	1750	1750
Maximum power of quick heating [A]	13.6	13.6
Water temperature range [°C]	35-75	35-75
Ambient temperature range for Efficiency [°C]	7-43	7-43
Tank rated pressure (bar)	10	10
Dimension A [mm]	1660	1850
Diameter of Tank	Ø520	Ø520
Weight of Tank (kg)	87	92

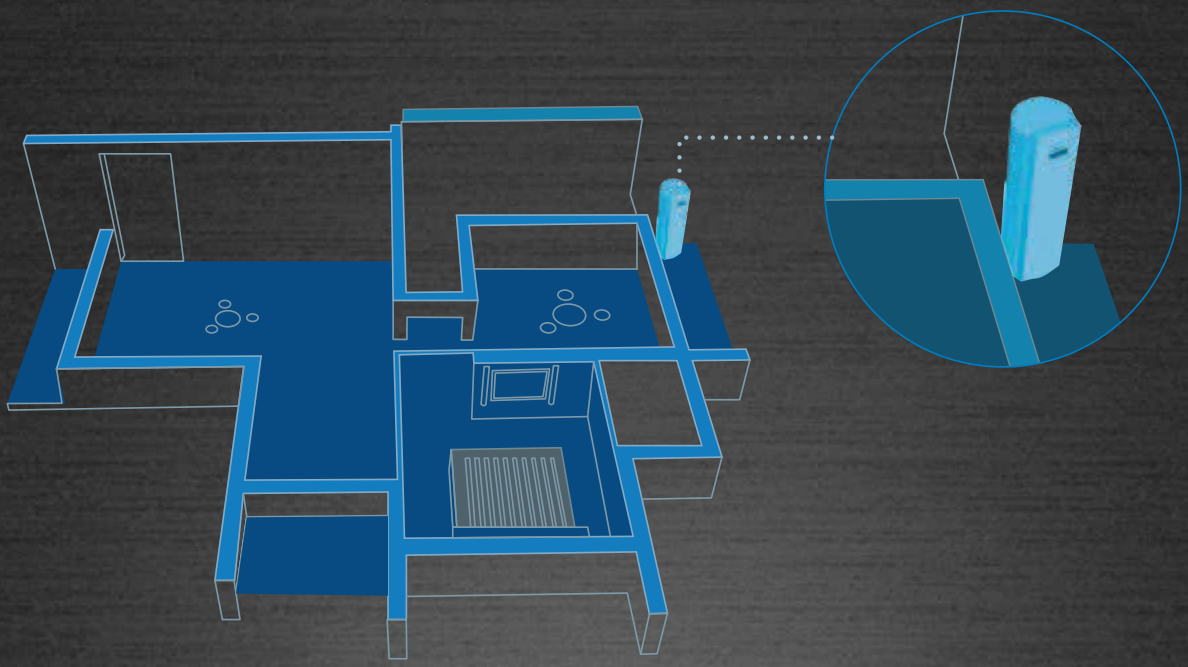
Line Diagram



External Dimensions



Installation Blueprint



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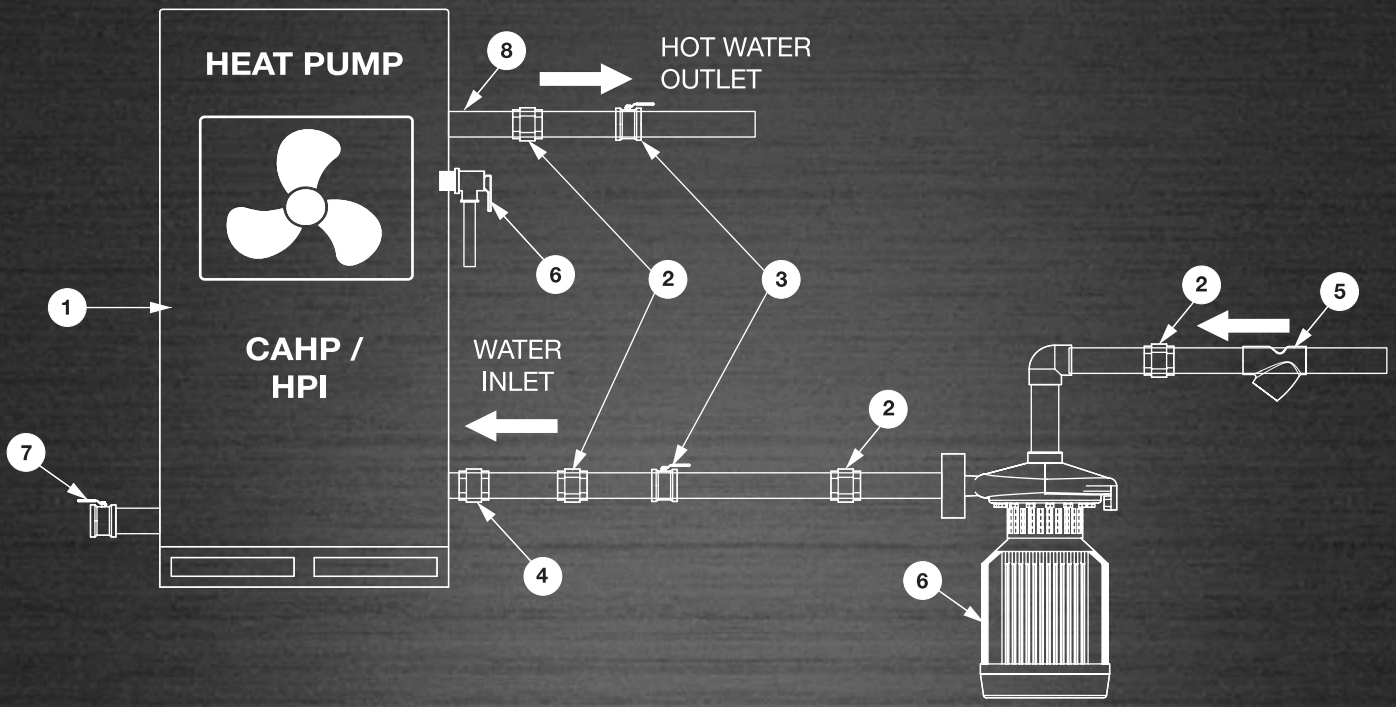

MODEL CAHP/HPI
ONE UNIT (WITHOUT TANK)

ITEM No.	DESCRIPTION	SCOPE	Qty. Reqd.
1	HEAT PUMP UNIT	A.O SMITH	1
2	PIPE UNION	CUSTOMER	4
3	BALL / GATE VALVE	CUSTOMER	2
4	CHECK VALVE / NON RETURN VALVE	A.O SMITH	1
5	Y-STRAINER / FILTER	CUSTOMER	1
6	TEMPT & PRESSURE RELIEF VALVE	A.O SMITH	1
7	DRAIN VALVE	A.O SMITH	1
8	PIPE NIPPLE	A.O SMITH	1
9	DISPLAY PANEL WITH CABLE	A.O SMITH	NI
10	UNIT MANUAL	A.O SMITH	NI

Note:
1) Heat pump water Inlet and Outlet pipe size is 3/4 inch.
2) Foundation of 1mtrs square with 4inch height is required

REV 00

A.O Smith
Innovation has a name.

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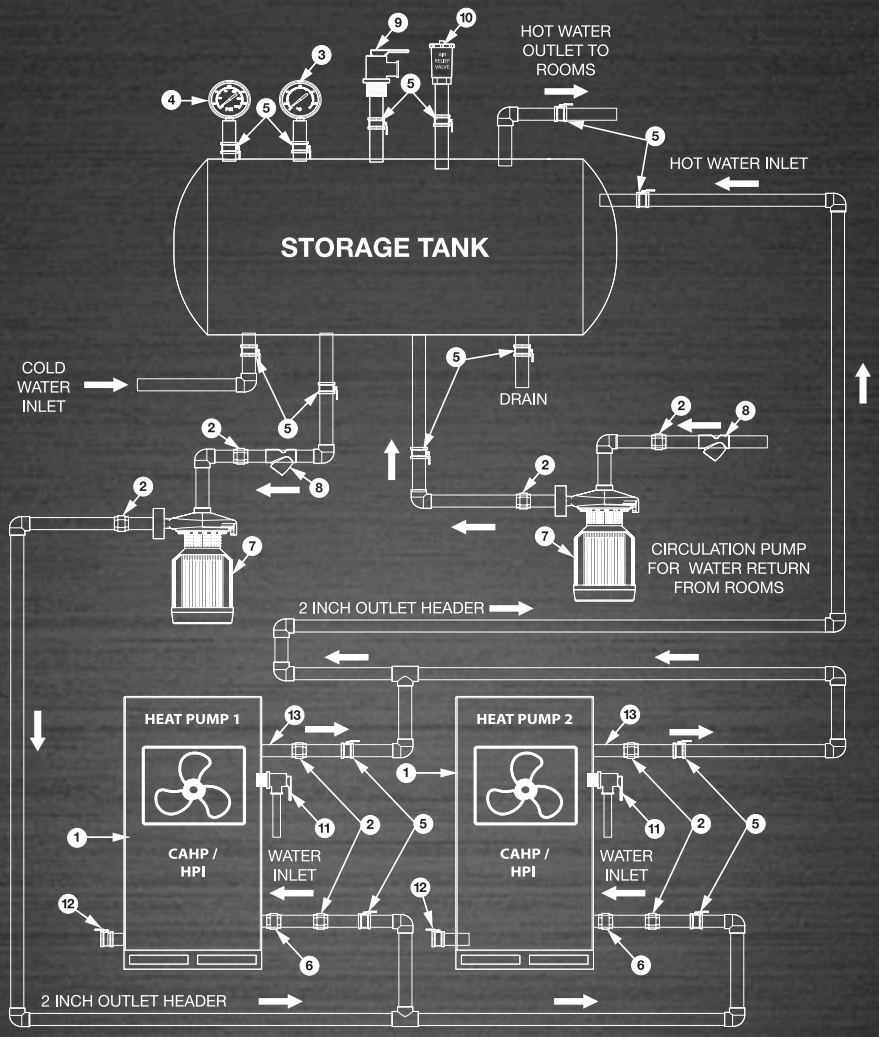

MODEL CAHP/HPI
TWO UNIT (WITH TANK)

ITEM No.	DESCRIPTION	SCOPE	Qty. Reqd.
1	HEAT PUMP UNIT	A.O SMITH	2
2	PIPE UNION	CUSTOMER	8
3	TEMPERATURE GAUGE	CUSTOMER	1
4	PRESSURE GAUGE	CUSTOMER	1
5	BALL / GATE VALVE	CUSTOMER	14
6	CHECK VALVE / NON RETURN VALVE	A.O SMITH	2
7	WATER CIRCULATION PUMP (6.5m3 / hr)	CUSTOMER	2
8	Y-STRAINER / FILTER	CUSTOMER	2
9	PRESSURE RELIEF VALVE	CUSTOMER	1
10	AIR RELIEF VALVE	CUSTOMER	1
11	TEMPT & PRESSURE RELIEF VALVE	A.O SMITH	2
12	DRAIN VALVE	A.O SMITH	2
13	PIPE NIPPLE	A.O SMITH	2
14	DISPLAY PANEL WITH CABLE	A.O SMITH	NI
15	UNIT MANUAL	A.O SMITH	NI

Note:
1) Heat pump water Inlet and Outlet pipe size is 3/4 inch.
2) Foundation of 1mtrs square with 4inch height is required

REV 00

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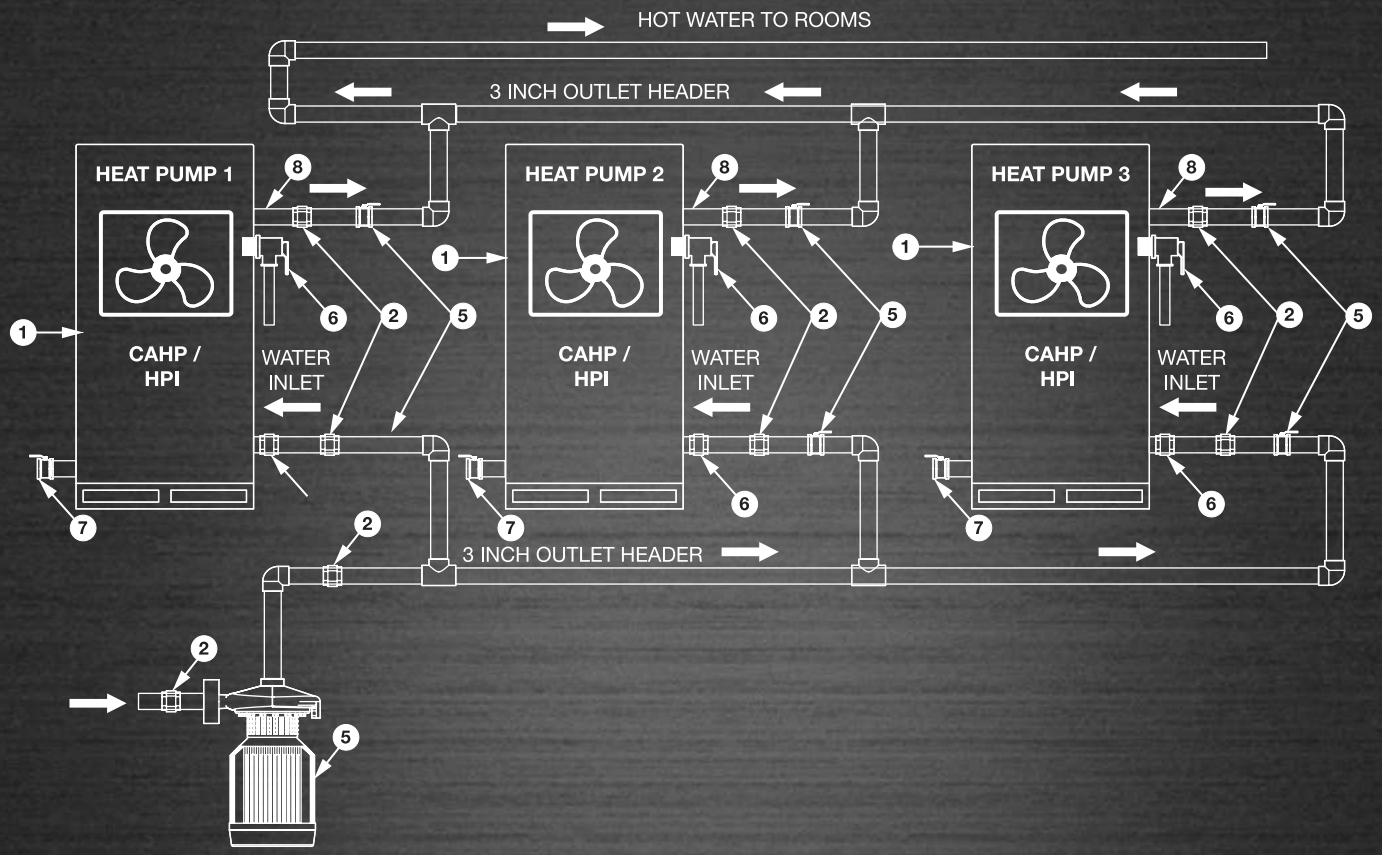

MODEL CAHP/HPI
THREE UNIT (WITHOUT TANK)

ITEM No.	DESCRIPTION	SCOPE	Qty. Reqd.
1	HEAT PUMP UNIT	A.O SMITH	3
2	PIPE UNION	CUSTOMER	8
3	BALL / GATE VALVE	CUSTOMER	6
4	CHECK VALVE / NON RETURN VALVE	A.O SMITH	3
5	WATER CIRCULATION PUMP (6.5m3 / hr)	CUSTOMER	1
6	TEMPT & PRESSURE RELIEF VALVE	A.O SMITH	3
7	DRAIN VALVE	A.O SMITH	3
8	PIPE NIPPLE	A.O SMITH	3
9	DISPLAY PANEL WITH CABLE	A.O SMITH	NI
10	UNIT MANUAL	A.O SMITH	NI

Note:
1) Heat pump water Inlet and Outlet pipe size is 3/4 inch.
2) Foundation of 1mtrs square with 4inch height is required

REV 00

A.O Smith
Innovation has a name.

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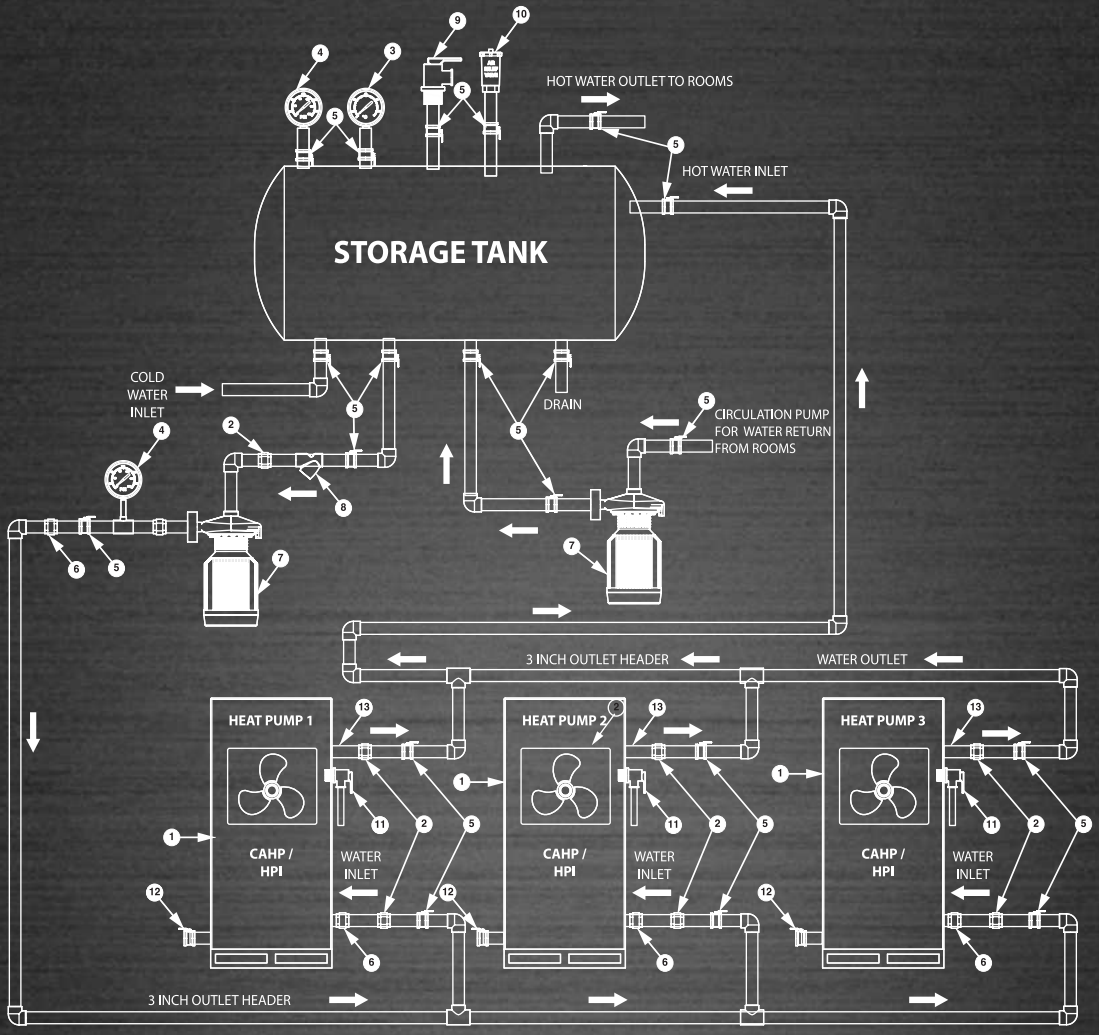

MODEL CAHP/HPI
THREE UNIT (WITH TANK)

ITEM No.	DESCRIPTION	SCOPE	Qty. Reqd.
1	HEAT PUMP UNIT	A.O SMITH	3
2	PIPE UNION	CUSTOMER	8
3	TEMPERATURE GAUGE	CUSTOMER	1
4	PRESSURE GAUGE	CUSTOMER	2
5	BALL / GATE VALVE	CUSTOMER	20
6	CHECK VALVE / NON RETURN VALVE	A.O SMITH	4
7	WATER CIRCULATION PUMP (6.5m3 / hr)	CUSTOMER	2
8	Y-STRAINER / FILTER	CUSTOMER	1
9	PRESSURE RELIEF VALVE	CUSTOMER	1
10	AIR RELIEF VALVE	CUSTOMER	1
11	TEMPT & PRESSURE RELIEF VALVE	A.O SMITH	3
12	DRAIN VALVE	A.O SMITH	3
13	PIPE NIPPLE	A.O SMITH	3
14	DISPLAY PANEL WITH CABLE	A.O SMITH	NI
15	UNIT MANUAL	A.O SMITH	NI

Note:

1) Heat pump water Inlet and Outlet pipe size is 3/4 inch.
2) Foundation of 1mtrs square with 4inch height is required

REV 00

A.O. Smith®
Innovation has a name.

HPA Series

Air to Water Heat Pump

Storage Capacity - 300 & 450 litres

HPA

Presenting the HPA Series - Smartly designed to give a premium hot water bathing experience with the new age heat pump technology. It is designed to be suitable for Hotels, Resorts/Villas. With the pathbreaking technology, that pulls heat from the environment, it is no surprise that our heat pumps reduce the water heating costs by more than 70%, reducing greenhouse emissions drastically.

Smarter way to heat water

- **AES Technology** – Intelligent Adaptive Energy Saving technology analyses the water usage patterns to automatically heat up the water and optimize energy consumption
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- **Smart Modes** – Enables you to customize as per your need. Three modes - Efficiency, Hybrid and Electric

Sensitive to the environment

- **Heating that saves energy** – Reduced energy consumption Up to 70% by extracting heat from the atmosphere to heat up the water
- **R134a Green Refrigerant** – Controls the greenhouse gas emission, thus contributing to a greener world

Absolutely safe for you

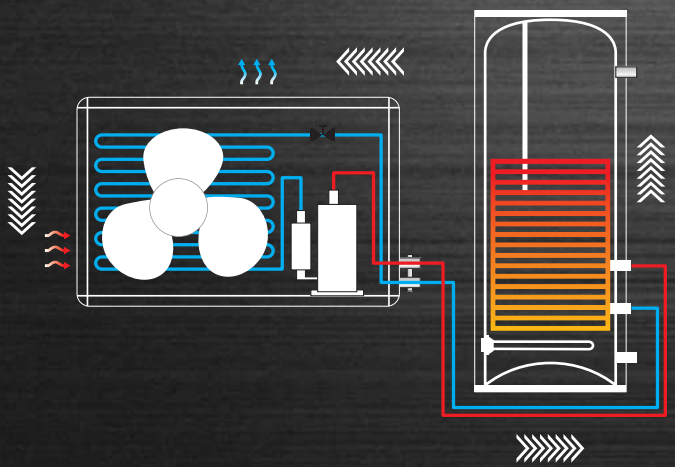
- 7 Safety Protection
  - High and Low voltage protection
  - High temperature limit protection switch (Eco switch)
  - High water temperature protection (Temperature sensor)
  - Refrigerant leakage protection
  - Compressor overheating discharge protection
  - Abnormal operation Protection (Relay and Electronic expansion valve)
  - Temperature and pressure relief valve

Digital Remote

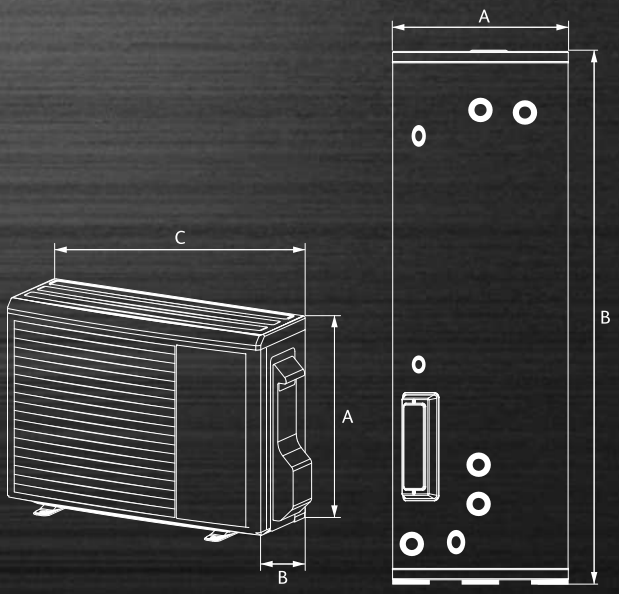
Technical Specification

MODEL		HPA-80C1.5A	HAP-120D2.0A
Rated volume [L]		300	450
Voltagene / Frequency [V/Hz]		220~ / 50	220~ / 50
Rated Input / Current [W/A]			
Efficiency Mode		1010/4.6	1380/6.5
Hybrid Turbo Mode		2010/9.1	2380/11
Output(W)COP		3.6	4.2
Efficiency Mode		3640	5800
Hybrid Turbo Mode		4640	6800
Water temperature range [°C]		35~75	35-75
Ambient temperature range for Efficiency [°C]		7~43	7~43
Tank rated pressure (bar)		10	10
External unit dimension	A [mm]	560	740
	B [mm]	320	350
	C [mm]	835	820
Tank dimension	A [mm]	Ø610	Ø710
	B [mm]	1640	1660
Weight of external unit (kg)		37	55
Weight of tank (kg)		98	133
Refrigerant/Quantity		R134a/940(g)	R134a/1400(g)

Line Diagram



External Dimensions



A.O Smith
Innovation has a name.

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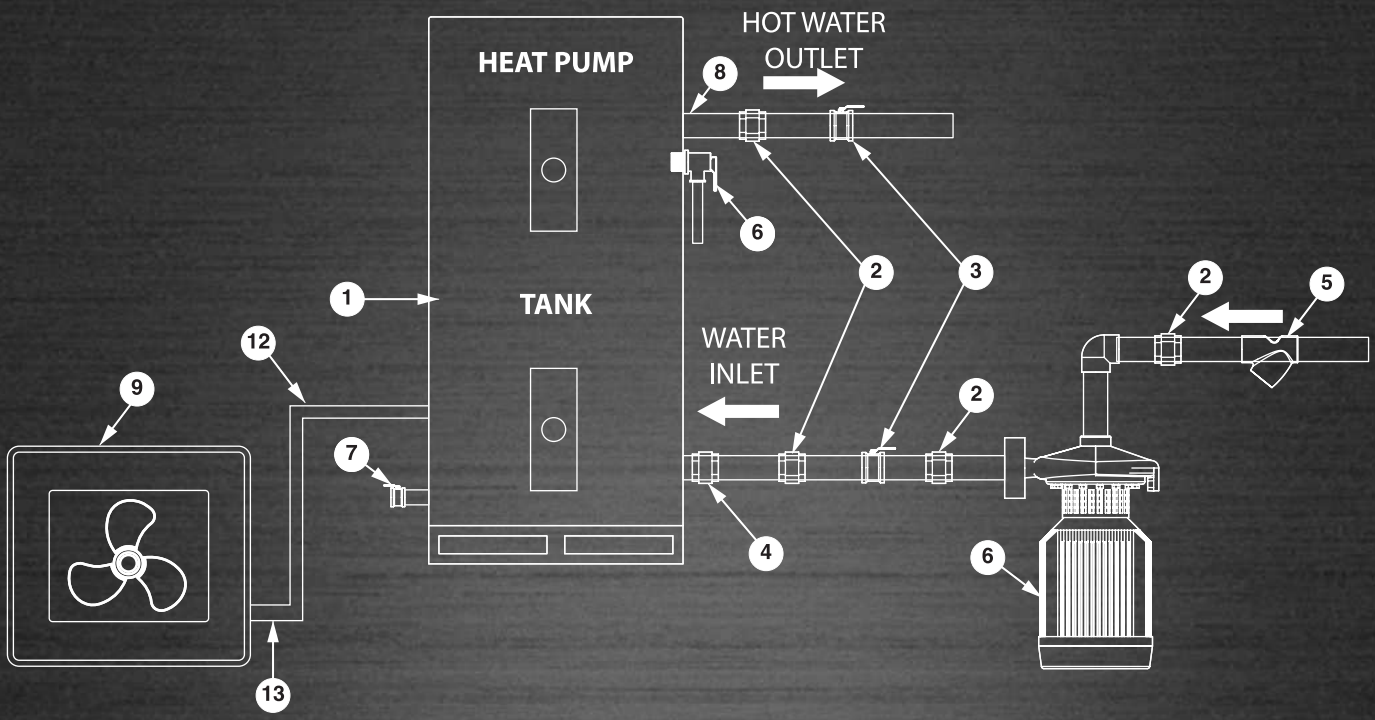

MODEL HPA-80 (SPLIT UNIT) ONE UNIT (WITHOUT TANK)

ITEM No.	DESCRIPTION	SCOPE	Qty. Reqd.
1	HEAT PUMP UNIT	A.O SMITH	1
2	PIPE UNION	CUSTOMER	4
3	BALL / GATE VALVE	CUSTOMER	2
4	CHECK VALVE / NON RETURN VALVE	A.O SMITH	1
5	Y-STRAINER / FILTER	CUSTOMER	1
6	TEMPT & PRESSURE RELIEF VALVE	A.O SMITH	1
7	DRAIN VALVE	A.O SMITH	1
8	PIPE NIPPLE	A.O SMITH	1
9	OUTDOOR UNIT	A.O SMITH	1
10	POWER CABLE	A.O SMITH	NI
11	COMMUNICATION CABLE	A.O SMITH	NI
12	COPPER TUBE 10MM (3 MTRS)	A.O SMITH	1
13	COPPER TUBE 6MM (3 MTRS)	A.O SMITH	1
14	WRAPPING TAPE (1 ROLL)	A.O SMITH	NI
15	DISPLAY REMOTE WITH CABLE	A.O SMITH	NI
16	UNIT MANUAL	A.O SMITH	NI

Note:
1) Heat pump water Inlet and Outlet pipe size is 3/4 inch.
2) Foundation of 1mtrs square with 4inch height is required

REV 00

A.O Smith
Innovation has a name.

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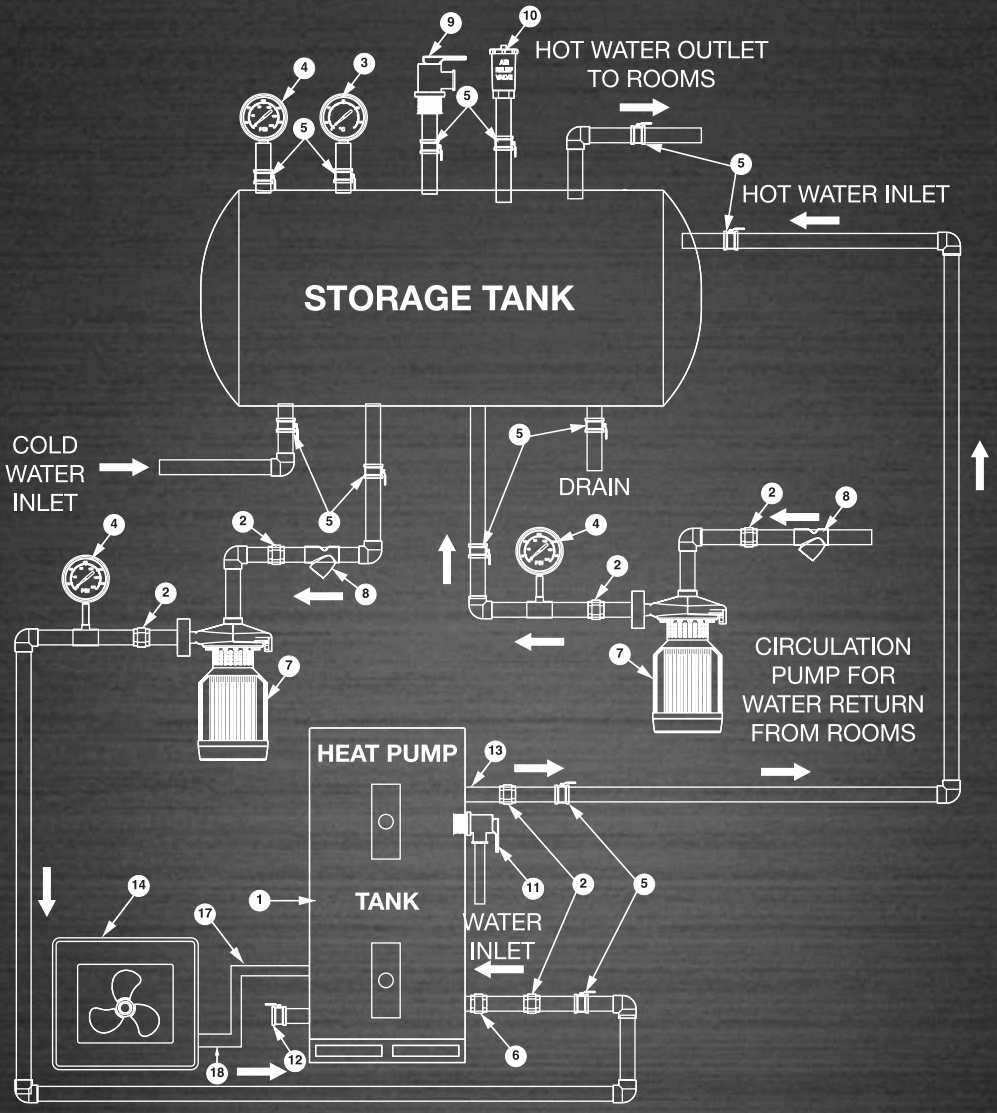

MODEL HPA-80 (SPLIT UNIT) ONE UNIT (WITH TANK)

ITEM No.	DESCRIPTION	SCOPE Qty.	Reqd.	ITEM No.	DESCRIPTION	SCOPE Qty.	Reqd.
1	HEAT PUMP UNIT	A.O SMITH	1	12	DRAIN VALVE	A.O SMITH	1
2	PIPE UNION	CUSTOMER	6	13	PIPE NIPPLE	A.O SMITH	1
3	TEMPERATURE GAUGE	CUSTOMER	1	14	OUTDOOR UNIT	A.O SMITH	1
4	PRESSURE GAUGE	CUSTOMER	3	15	POWER CABLE	A.O SMITH	NI
5	BALL / GATE VALVE	CUSTOMER	11	16	COMMUNICATION CABLE	A.O SMITH	NI
6	CHECK VALVE / NON RETURN VALVE	A.O SMITH	1	17	COPPER TUBE 10MM (3 MTRS)	A.O SMITH	1
7	WATER CIRCULATION PUMP (6.5m3 / hr)	CUSTOMER	2	18	COPPER TUBE 6MM (3 MTRS)	A.O SMITH	1
8	Y-STRAINER / FILTER	CUSTOMER	2	19	WRAPPING TAPE (1 ROLL)	A.O SMITH	NI
9	PRESSURE RELIEF VALVE	CUSTOMER	1	20	DISPLAY REMOTE WITH CABLE	A.O SMITH	NI
10	AIR RELIEF VALVE	CUSTOMER	1	21	UNIT MANUAL	A.O SMITH	NI
11	TEMPT & PRESSURE RELIEF VALVE	A.O SMITH	1				

Note:
1) Heat pump water Inlet and Outlet pipe size is 3/4 inch.
2) Foundation of 1mtrs square with 4inch height is required

REV 00

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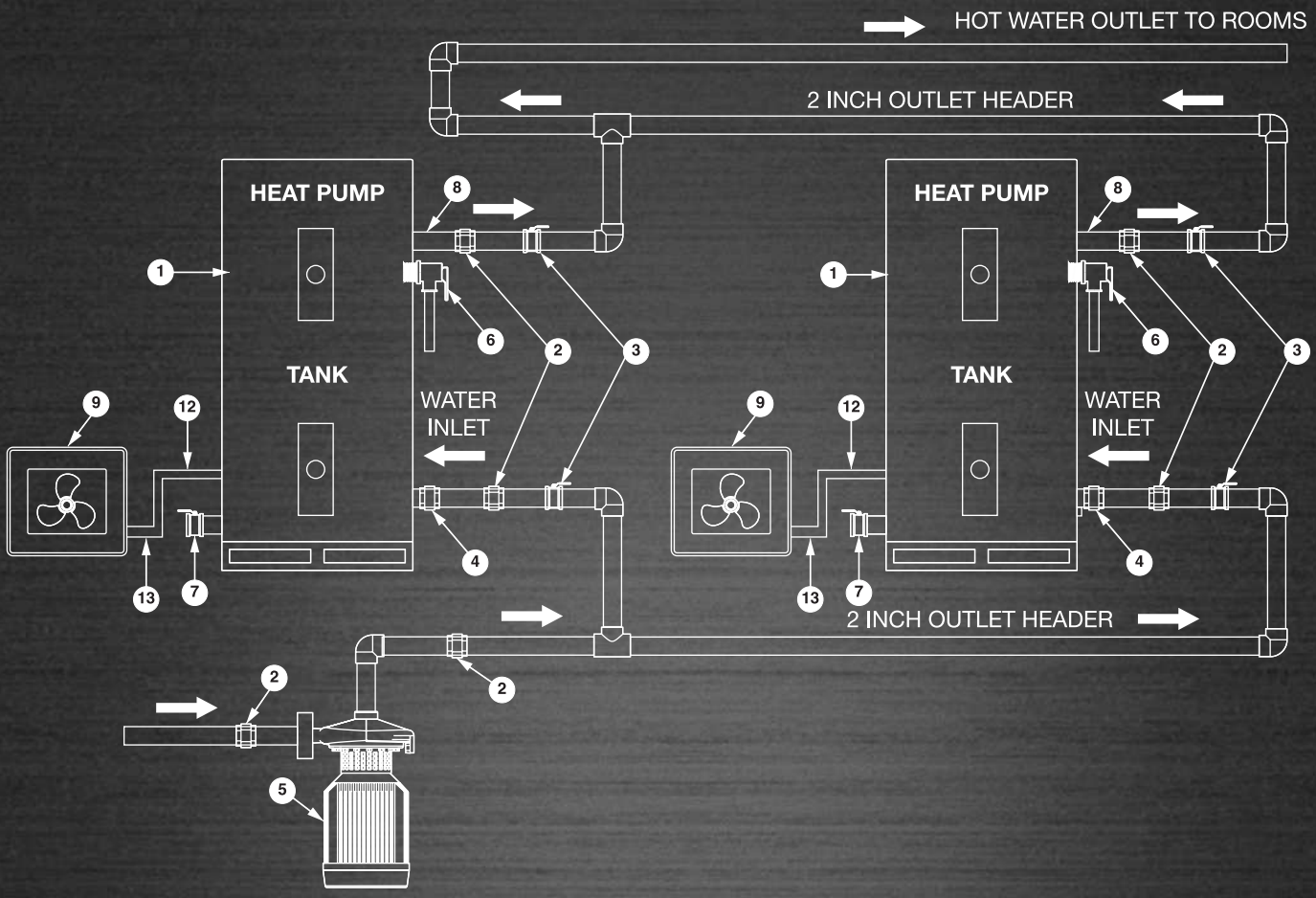

MODEL HPA-80
TWO UNIT (WITHOUT TANK)

ITEM No.	DESCRIPTION	SCOPE Qty.	Reqd.
1	HEAT PUMP UNIT	A.O SMITH	2
2	PIPE UNION	CUSTOMER	6
3	BALL / GATE VALVE	CUSTOMER	4
4	CHECK VALVE / NON RETURN VALVE	A.O SMITH	2
5	WATER CIRCULATION PUMP (6.5m3 / hr)	CUSTOMER	1
6	TEMPT & PRESSURE RELIEF VALVE	A.O SMITH	2
7	DRAIN VALVE	A.O SMITH	2
8	PIPE NIPPLE	A.O SMITH	2
9	OUTDOOR UNIT	A.O SMITH	2
10	POWER CABLE	A.O SMITH	NI
11	COMMUNICATION CABLE	A.O SMITH	NI
12	COPPER TUBE 10MM (3 MTRS)	A.O SMITH	1
13	COPPER TUBE 6MM (3 MTRS)	A.O SMITH	1
14	WRAPPING TAPE (1 ROLL)	A.O SMITH	NI
15	DISPLAY REMOTE WITH CABLE	A.O SMITH	NI
16	UNIT MANUAL	A.O SMITH	NI

Note:
1) Heat pump water Inlet and Outlet pipe size is 3/4 inch.
2) Foundation of 1mtrs square with 4inch height is required

REV 00

A.O Smith
Innovation has a name.

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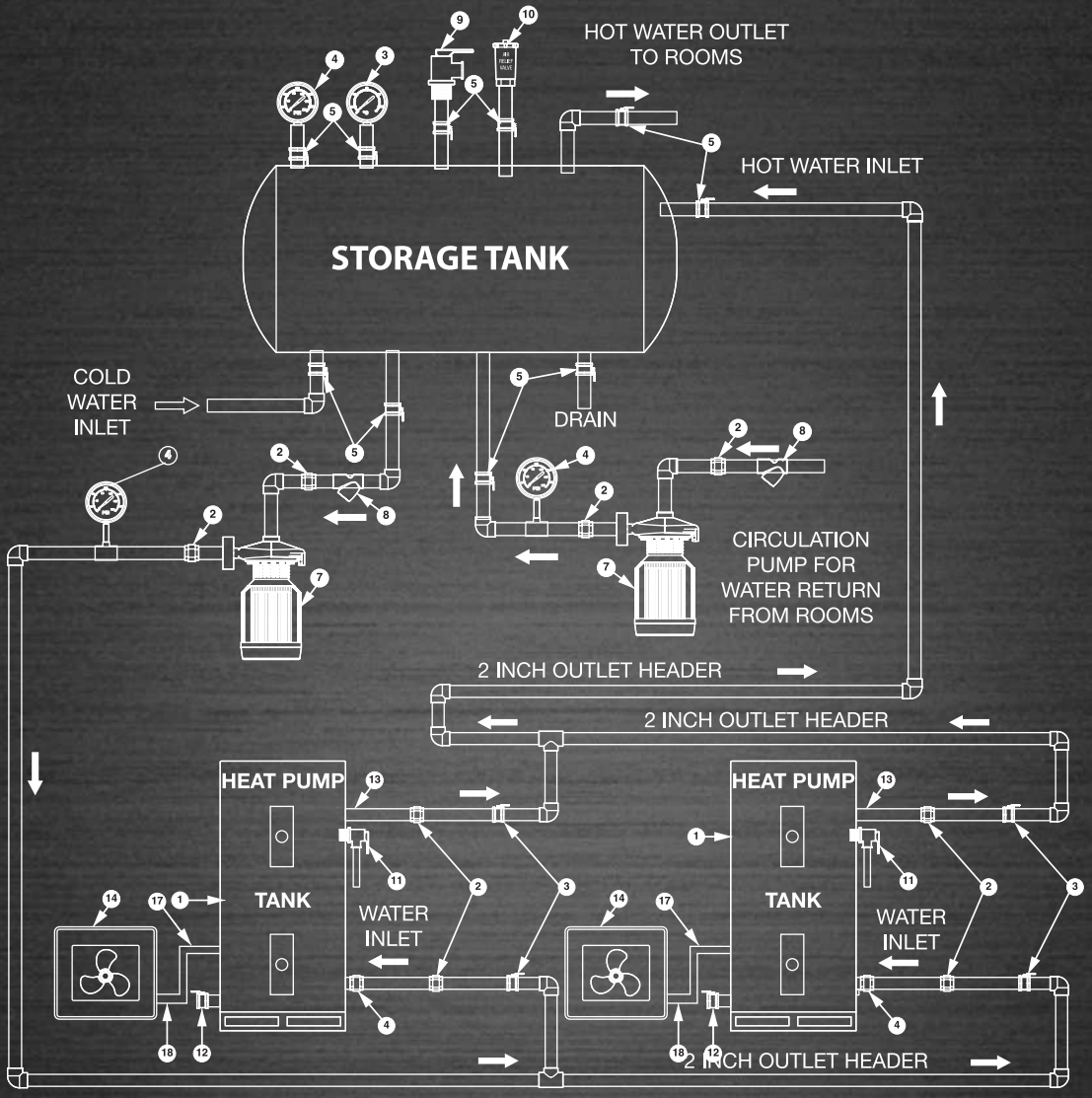


MODEL HPA-80
TWO UNIT (WITH TANK)

ITEM No.	DESCRIPTION	SCOPE Qty.	Reqd.	ITEM No.	DESCRIPTION	SCOPE Qty.	Reqd.
1	HEAT PUMP UNIT	A.O SMITH	2	12	DRAIN VALVE	A.O SMITH	2
2	PIPE UNION	CUSTOMER	8	13	PIPE NIPPLE	A.O SMITH	2
3	TEMPERATURE GAUGE	CUSTOMER	1	14	OUTDOOR UNIT	A.O SMITH	2
4	PRESSURE GAUGE	CUSTOMER	1	15	POWER CABLE	A.O SMITH	NI
5	BALL / GATE VALVE	CUSTOMER	14	16	COMMUNICATION CABLE	A.O SMITH	NI
6	CHECK VALVE / NON RETURN VALVE	A.O SMITH	2	17	COPPER TUBE 10MM (3 MTRS)	A.O SMITH	1
7	WATER CIRCULATION PUMP (6.5m3 / hr)	CUSTOMER	2	18	COPPER TUBE 6MM (3 MTRS)	A.O SMITH	1
8	Y-STRAINER / FILTER	CUSTOMER	2	19	WRAPPING TAPE (1 ROLL)	A.O SMITH	NI
9	PRESSURE RELIEF VALVE	CUSTOMER	1	20	DISPLAY REMOTE WITH CABLE	A.O SMITH	NI
10	AIR RELIEF VALVE	CUSTOMER	1	21	UNIT MANUAL	A.O SMITH	NI
11	TEMPT & PRESSURE RELIEF VALVE	A.O SMITH	2				

Note:
1) Heat pump water Inlet and Outlet pipe size is 3/4 inch.
2) Foundation of 1mtrs square with 4inch height is required

REV 00

A.O. Smith®
Innovation has a name.

CAHP - 5HP & 10HP

Air to Water Heat Pump

CAHP 5 HP & 10 HP

Presenting the CAHP 5HP & 10HP Series - Smartly designed tankless unit to give a premium hot water bathing experience with the new age heat pump technology. It is designed to be suitable for Workplace, Industrial units, and Educational Institutions. With the pathbreaking technology, that pulls heat from the environment, it is no surprise that our heat pumps reduce the water heating costs significantly, reducing greenhouse emissions, thus contributing to a greener world.

Smarter way to heat water

- **Central Controller** – Smarter way to control heating
- **Smart Modes** – Enables you to customize as per your need. Three modes - Efficiency, Hybrid and Electric

Sensitive to the environment

- **Heating that saves energy** – Reduced energy consumption Up to 70% by extracting heat from the atmosphere to heat up the water
- **COP** – Coefficient of performance is up to 4 enabling efficient heating
- **R134a Green Refrigerant** – Controls the greenhouse gas emission, thus contributing to a greener world

Absolutely safe for you

- **7 Safety Protection**
  - High and Low voltage protection
  - High temperature limit protection switch (Eco switch)
  - High water temperature protection (Temperature sensor)
  - Refrigerant leakage protection
  - Compressor overheating discharge protection
  - Abnormal operation Protection (Relay and Electronic expansion valve)
  - Temperature and pressure relief valve

Central Controller

Technical Specification

MODEL	CAHP-MC-38 (10HP)	CAHP-MC-19 (5HP)
Power Supply	380V 3N ~ 50Hz	380V 3N ~ 50Hz
Voltage Range	380V +/- 10%	380V +/- 10%
Rated Heating Capacity (1)	38 kW	19.8 kW
Rated Water Flow (1)	6.5 CMH	3.4 CMH
Rated Power Input (1)	10.3 kW	6.02 kW
Rated Operation Current (1)	18.6 A	11.0A
Maximum Power Input	13.2 kW	6.8 kW
Maximum Operation Current	23.3 A	11.7 A
Operation Noise (2)	65 dB(A)	60 dB(A)
Refrigerant / Quantity	R410a / 6.2kg	R410a / 2.8kg
Refrigerant Side High Side	4.2 Mpa	4.4 Mpa
Design Pressure Low Side	3.1 Mpa	3.1 Mpa
Water Side Design Pressure	1.0 Mpa	1.0 Mpa
Water Side Pressure Drop (3)	45 kPa	73 kPa
Water Connection Size	DN40 (R1 1/2")	DN32 (R1 1/4")
Waterproof Class	IPX4	IPX4
Net Weight	287 kg	170 kg
Dimensions (L x W x H) mm	1020 x 846 x 1840	719 x 761 x 1160

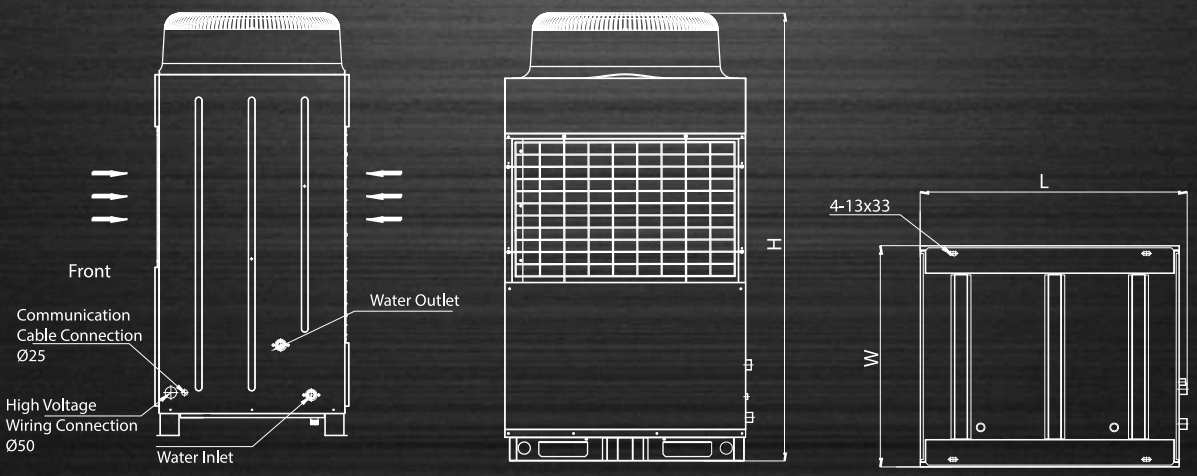
Note:

(1) Rated condition: Ambient temperature 20/15oC (dry/wet bulb), water temperature 47/52°C (inlet/outlet).

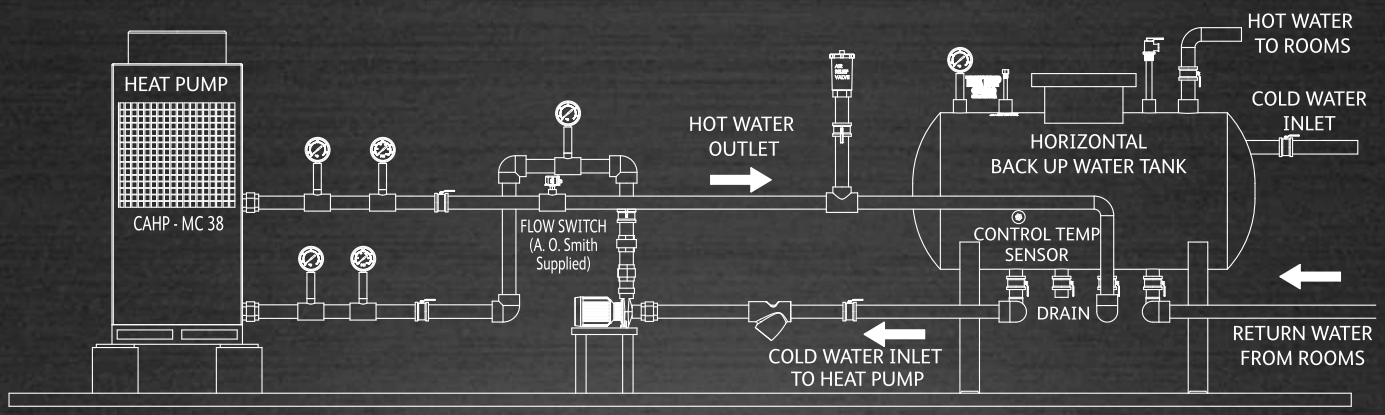
(2) Sound pressure value at one meter.

(3) Measured at the rated water flow.

External Dimensions



Schematic Drawing



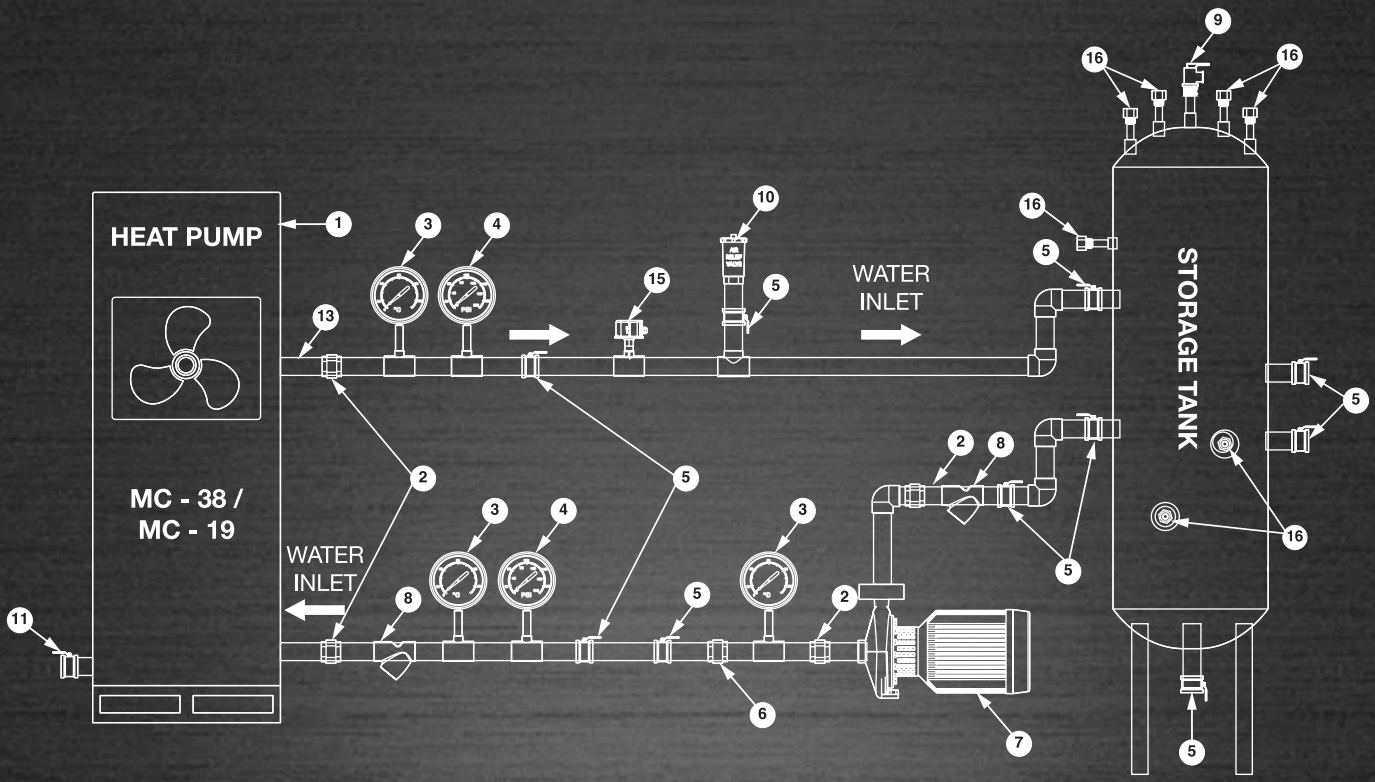
Storage tank: Minimum 2000 & 4000 litre for 5HP & 10HP respectively

Circulation pump flow rate: 3500 LPH & 6500 LPH for 5HP & 10HP respectively

Recommended water hardness: Less than 300 ppm

A.O Smith
Innovation has a name.

CAUTION: THIS DRAWING SHOWS SUGGESTED PIPING CONFIGURATION AND OTHER DEVISES: CHECK WITH LOCAL CODES AND ORDINANCES FOR ADDITIONAL REQUIREMENTS.



Heat Pump QTY	Main Outlet Piping		Main Inlet Piping	
	CAHP-MC-38	CAHP-MC-19	CAHP-MC-38	CAHP-MC-19
1	DN40	DN32	DN40	DN32
2	DN65	DN50	DN65	DN50
3	DN80	DN65	DN80	DN65
4~5	DN100	DN80	DN100	DN80
6~8	DN125	DN100	DN125	DN100

MODEL MC - 38 / MC - 19
ONE UNIT (VERTICAL TANK)

ITEM No.	DESCRIPTION	SCOPE Qty.	Reqd.	ITEM No.	DESCRIPTION	SCOPE Qty.	Reqd.
1	HEAT PUMP UNIT	A.O SMITH	1	9	PRESSURE RELIEF VALVE	CUSTOMER	1
2	PIPE UNION	CUSTOMER	4	10	AIR RELIEF VALVE	CUSTOMER	1
3	TEMPERATURE GAUGE	CUSTOMER	3	11	DRAIN VALVE	A.O SMITH	1
4	PRESSURE GAUGE	CUSTOMER	2	12	PIPE NIPPLE	A.O SMITH	1
5	BALL / GATE VALVE	CUSTOMER	10	13	DISPLAY PANEL WITH CABLE	A.O SMITH	NI
6	CHECK VALVE / NON RETURN VALVE	A.O SMITH	1	14	UNIT MANUAL	A.O SMITH	NI
7	WATER CIRCULATION PUMP (6.5m3 / hr)	CUSTOMER	1	15	WATER FLOW SWITCH	A.O SMITH	1
8	Y-STRAINER / FILTER	CUSTOMER	2	16	TEMPERATURE SENSOR	A.O SMITH	7

Piping Selection:
Please select copper pipe, PP-R pipe, galvanized pipe or stainless steel pipe based on the actual requirement and size the system main inlet and outlet piping.

Note:
1) Water flow switch inlet and outlet minimum 300 mm straight line to be maintained.
2) Water flow requirement refer unit manual.

REV 00

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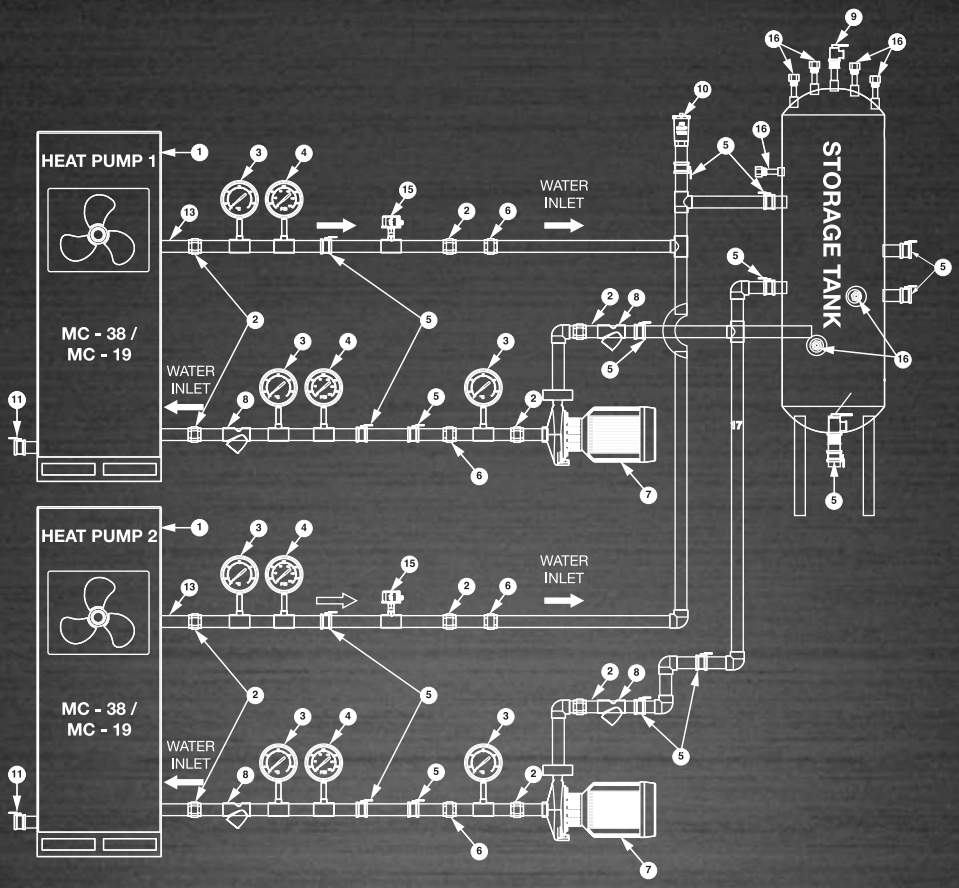
Innovation has a name.

CAUTION: THIS DRAWING SHOWS SUGGESTED PIPING CONFIGURATION AND OTHER DEVISES: CHECK WITH LOCAL CODES AND ORDINANCES FOR ADDITIONAL REQUIREMENTS.



Heat Pump QTY	Main Outlet Piping		Main Inlet Piping	
	CAHP-MC-38	CAHP-MC-19	CAHP-MC-38	CAHP-MC-19
1	DN40	DN32	DN40	DN32
2	DN65	DN50	DN65	DN50
3	DN80	DN65	DN80	DN65
4~5	DN100	DN80	DN100	DN80
6~8	DN125	DN100	DN125	DN100

MODEL MC - 38 / MC - 19
TWO UNIT (VERTICAL TANK)

ITEM No.	DESCRIPTION	SCOPE Qty.	Reqd.	ITEM No.	DESCRIPTION	SCOPE Qty.	Reqd.
1	HEAT PUMP UNIT	A.O SMITH	2	9	PRESSURE RELIEF VALVE	CUSTOMER	1
2	PIPE UNION	CUSTOMER	10	10	AIR RELIEF VALVE	CUSTOMER	1
3	TEMPERATURE GAUGE	CUSTOMER	6	11	DRAIN VALVE	A.O SMITH	2
4	PRESSURE GAUGE	CUSTOMER	4	12	PIPE NIPPLE	A.O SMITH	2
5	BALL / GATE VALVE	CUSTOMER	14	13	DISPLAY PANEL WITH CABLE	A.O SMITH	NI
6	CHECK VALVE / NON RETURN VALVE	A.O SMITH	4	14	UNIT MANUAL	A.O SMITH	NI
7	WATER CIRCULATION PUMP (6.5m3 / hr)	CUSTOMER	2	15	WATER FLOW SWITCH	A.O SMITH	2
8	Y-STRAINER / FILTER	CUSTOMER	4	16	TEMPERATURE SENSOR	A.O SMITH	7

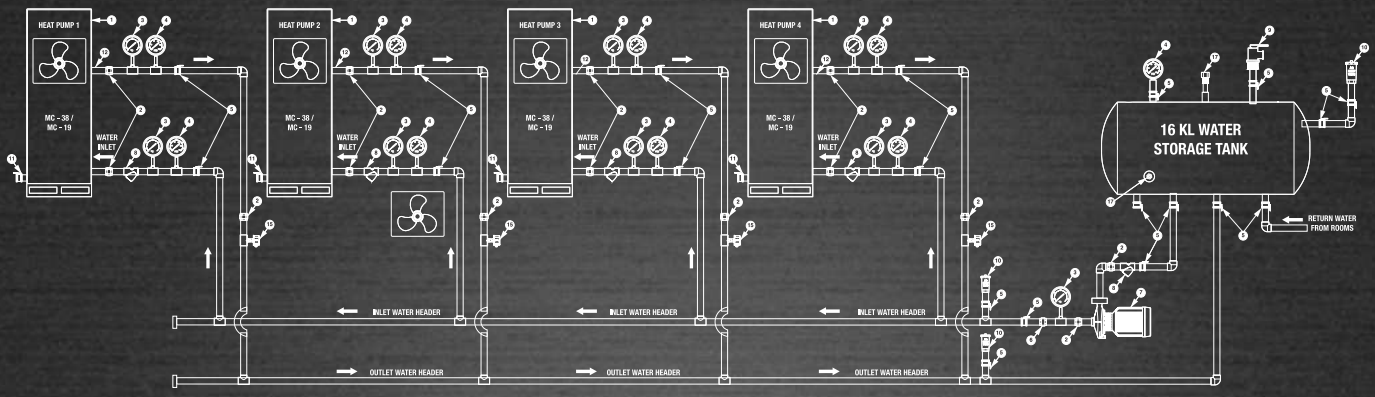
Piping Selection:
Please select copper pipe, PP-R pipe, galvanized pipe or stainless steel pipe based on the actual requirement and size the system main inlet and outlet piping.

Note:
1) Water flow switch inlet and outlet minimum 300 mm straight line to be maintained.
2) Water flow requirement refer unit manual.

REV 00

A.O Smith
Innovation has a name.

CAUTION: THIS DRAWING SHOWS SUGGESTED PIPING CONFIGURATION AND OTHER DEVISES: CHECK WITH LOCAL CODES AND ORDINANCES FOR ADDITIONAL REQUIREMENTS.



Heat Pump QTY	Main Outlet Piping		Main Inlet Piping	
	CAHP-MC-38	CAHP-MC-19	CAHP-MC-38	CAHP-MC-19
1	DN40	DN32	DN40	DN32
2	DN65	DN50	DN65	DN50
3	DN80	DN65	DN80	DN65
4~5	DN100	DN80	DN100	DN80
6~8	DN125	DN100	DN125	DN100

MODEL MC - 38 / MC - 19
FOUR UNIT (HORIZONTAL TANK)

ITEM No.	DESCRIPTION	SCOPE Qty.	Reqd.	ITEM No.	DESCRIPTION	SCOPE Qty.	Reqd.
1	HEAT PUMP UNIT	A.O SMITH	4	9	PRESSURE RELIEF VALVE	CUSTOMER	1
2	PIPE UNION	CUSTOMER	14	10	AIR RELIEF VALVE	CUSTOMER	3
3	TEMPERATURE GAUGE	CUSTOMER	9	11	DRAIN VALVE	A.O SMITH	1
4	PRESSURE GAUGE	CUSTOMER	9	12	PIPE NIPPLE	A.O SMITH	1
5	BALL / GATE VALVE	CUSTOMER	18	13	DISPLAY PANEL WITH CABLE	A.O SMITH	NI
6	CHECK VALVE / NON RETURN VALVE	A.O SMITH	1	14	UNIT MANUAL	A.O SMITH	NI
7	WATER CIRCULATION PUMP (6.5m3 / hr)	CUSTOMER	1	15	WATER FLOW SWITCH	A.O SMITH	4
8	Y-STRAINER / FILTER	CUSTOMER	5	16	TEMPERATURE SENSOR	A.O SMITH	2

Piping Selection:
Please select copper pipe, PP-R pipe, galvanized pipe or stainless steel pipe based on the actual requirement and size the system main inlet and outlet piping.

Note:
1) Water flow switch inlet and outlet minimum 300 mm straight line to be maintained.
2) Water flow requirement refer unit manual.

REV 00

A.O. Smith®
Innovation has a name.

G62-30T30

Gas Water Heaters

ATMOSPHERIC VENT

INTELLIGENT CONTROL LOGIC

- The internal microprocessor provides enhanced operating parameters and tighter differentials for precise sensing and faster heating response to optimize performance.
- Uses a thermopile to generate the power needed to operate the electronic gas control without requiring an external power source.
- The electronic gas control incorporates an LED status indicator that monitors system operation and service diagnostics.
- *Not available on 60,000 BTU input models (G62-50T60 and G62-55T60).

HIGH ENERGY FACTORS

- Eco-friendly non-CFC foam insulation, external heat traps and specially designed combustion chamber combine to produce a high Energy Factor for maximum savings on operating costs.

GREEN CHOICE® GAS BURNER

- Patented eco-friendly burner design reduces NOx emissions by up to 33% and complies with Low-NOx emission requirements of less than 40 ng/J.

SELF-CLEANING DIP TUBE

- Reduces lime and sediment buildup and maximizes hot water output. Made from long-lasting PEX crosslinked polymer.

COREGARD™ ANODE ROD

- Our anode rods have a stainless steel core that extends the life of the anode rod allowing superior tank protection far longer than standard anode rods.

PUSH-BUTTON PIEZO IGNITOR

- Makes lighting the pilot fast and easy with one-hand push-button spark ignition.

HEAT TRAP NIPPLES

- Factory-installed for faster installation.

BLUE DIAMOND® GLASS COATING

- Provides superior corrosion resistance compared to industry standard glass lining.

ENHANCED-FLOW BRASS DRAIN VALVE

- Our residential water heaters have a solid brass, tamper resistant, enhanced-flow, ball type, drain valve.
- Uses a standard female hose fitting that allows for fast and easy draining during maintenance.
- Designed for easy operation, this valve includes an integral screwdriver slot that features a 1/4 turn (open/ close) radius, which not only permits full straight-through water flow but also a quick and positive shut off.

CODE COMPLIANCE

- Meets UBC, CEC and HUD National Codes.
- Meets the thermal efficiency and standby loss requirements of the U. S. Department of Energy and current edition of ASHRAE/IENSA 90.1
- Complies with the Federal Energy Conservation Standards effective April 16, 2015, in accordance with the Energy Policy and Conservation Act (EPCA), as amended. CSA CERTIFIED AND ASME RATED T&P RELIEF VALVE MAXIMUM HYDROSTATIC WORKING PRESSURE 150 PSI

Technical Specification

Model	G62-30T30	G62-40T40	G62-50T50*
Gallon Cpaacity	30	40	50
First hour Rating Gallon	55	56	82
Energy Factor	0.63	0.62	0.60
BTU Input Natural Gas	30,000	40,000	50,000
BYU Input Propane Gas	29,000	36,000	45,000
Recoury 90* Rise Gallon per Hour	31	42	54
Approx. Shippinh Weight (lbs)	108	132	165

External Dimensions

Model Dimensions (In)	A	B	C	D	E	F	G	H
G62-30T30	60	56-1/2	17-3/4	11-1/4	8	49--1/4	N/A	N/A
G62-40T40	62	58-1/2	19-3/4	11-1/4	8	51-3/4	N/A	N/A
G62-50T50*	60-3/4	57-1/4	22	12	8	50-1/2	50-1/2	14-1/4

Water connection is 3/4" on all models. All models available in propane (LP) gas.

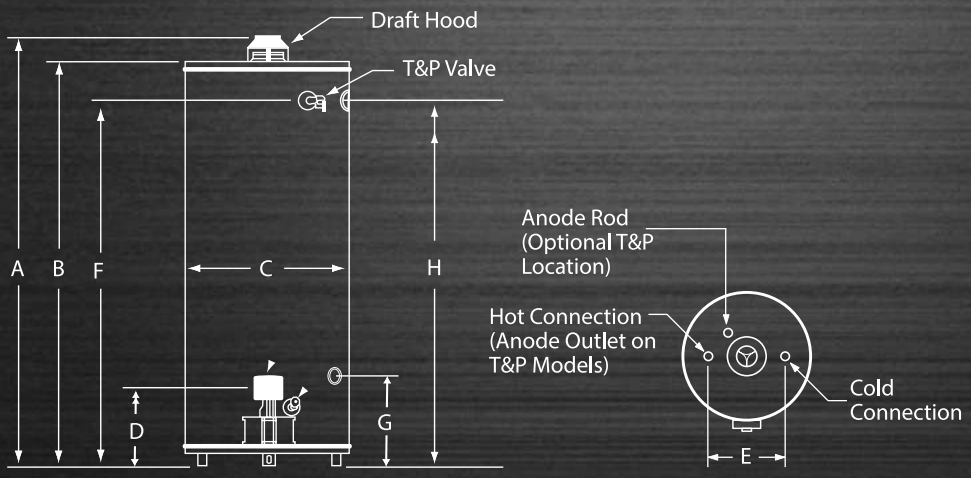
† Models ship with supplied insulation blanket.

Extended tank warranties available.

* Optional side-mounted recirculating taps.

All models approved for installation from sea level to 10,100 ft. elevation.

Dimensions and specifications subject to change without notice in accordance with our policy of continuous product improvement.



FLAMMABLE VAPOR IGNITION RESISTANT (FVIR) WATER HEATERS

American FVIR design meets the American National Standards Institute Standards (ANSIZ21.10.1-CSA 4.1) that deal with the accidental or unintended ignition of flammable vapors, such as those emitted by gasoline.

Features a sealed combustion chamber with intake air filter and a flame arrestor built into the water heater base. In addition, a thermal cutoff (TCO) device, is designed to shut off gas flow to the burner and pilot if poor combustion is detected.

NAECA COMPLIANT 2015 ENERGY EFFICIENT

Low Lead Content

DESIGN CERTIFIED

Green Choice™ The Eco-Friendly Gas-Fired Burner

A.O. Smith

Innovation has a name.

G62-75T75

Gas Water Heaters

HIGH RECOVERY ATMOSPHERIC VENT 75 GALLON

HIGHEST RECOVERIES

- Capacity/input combinations up to 98 gallons/75,100 BTU's produce recoveries up to 81 gallons per hour.

FULLY AUTOMATIC CONTROLS WITH SAFETY SHUTOFF

- Accurate, dependable control system requires no electric connections.
- Fixed automatic gas shutoff device for added safety.

GREEN CHOICE® GAS BURNER

- Patented eco-friendly burner design reduces NOx emissions up to 33% and complies with Low-NOx emission requirements of 40 ng/J.

SELF-CLEANING DIP TUBE

- Reduces lime and sediment buildup, maximizes hot water output. Made from long-lasting Pex cross-linked polymer

COREGARD™ ANODE ROD

- Our anode rods have a stainless steel core that extends the life of the anode rod allowing superior tank protection far longer than standard anode rods.

PUSH-BUTTON PIEZO IGNITOR

- Makes lighting the pilot fast and easy with one-hand push-button spark ignition (natural gas only) NIPPLES
- Factory-Installed for faster installation

BLUE DIAMOND® GLASS COATING

- Provides superior corrosion resistance compared to industry standard glass lining.

ENHANCED-FLOW BRASS DRAIN VALVE

- Our residential water heaters have a solid brass, tamper resistant, enhanced flow, ball type, drain valve.
- Uses a standard female hose fitting that allows for fast and easy draining during maintenance.
- Designed for easy operation, this valve includes an integral screwdriver slot that features a 1/4 turn (open/close) radius, which not only permits full straight-through water flow but also a quick and positive shut off.

CODE COMPLIANCE

- Meets UBC, CEC and ICC National Codes.
- Meets the thermal efficiency and standby loss requirements of the U.S. Department of Energy and current edition of ASHRAE/IESNA 90.1 CSA CERTIFIED AND ASME RATED T&P RELIEF VALVE MAXIMUM HYDROSTATIC WORKING PRESSURE 150 PSI DESIGN-LISTED BY UNDERWRITERS LABORATORIES
- Certified at 300 PSI test pressure and 150 PSI working pressure.
- Listed according to ANSI Z21. 10.3 CSA 4.3 standards governing storage tank-type water heaters.

Technical Specification

Model	G62-75T75-4NOV
Gallon Cpaacity	74
BTU Input Natural Gas	75,100
Recoury 90* Rise Gallon per Hour	81
Approx. Shippinh Weight (lbs)	275

External Dimensions

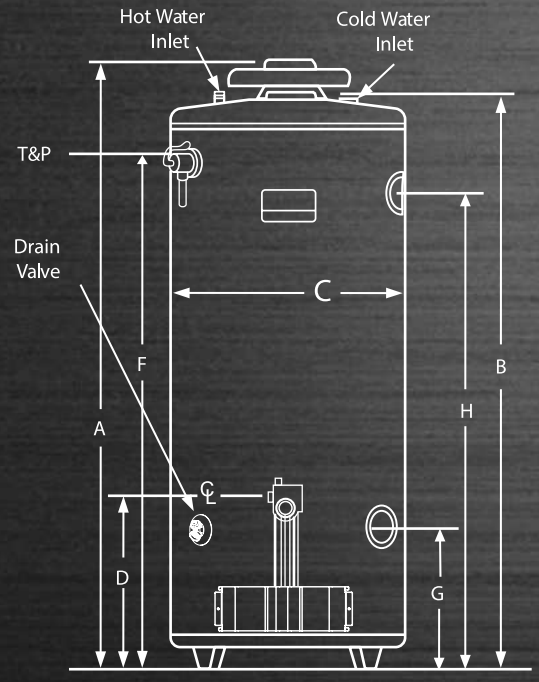
Model Dimensions (In)	A	B	C	D	E	F	G	H
G62-75T75-4NOV	61	58-1/2	26-1/2	15-3/16	16	50--1/4	15-1/2	51-1/4

Water connections are 1" male NPT on the G62-75T75-4NOV and 1-1/4" on G62-100T77-4NOV.

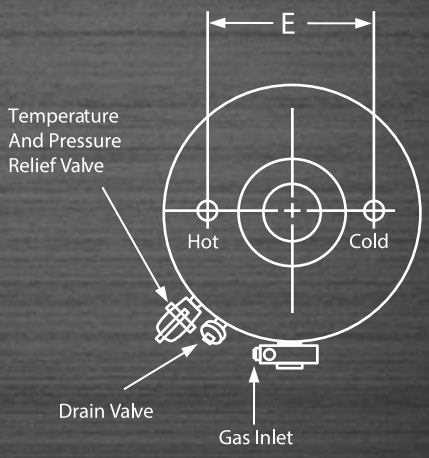
All models certified from sea level to 7,700 ft. elevation.

All models available in propane (LP) gas.

Dimensions and specifications subject to change without notice in accordance with our policy of continuous product improvement.



FRONT VIEW



TOP VIEW

NAECA COMPLIANT 2015 ENERGY EFFICIENT

Low Lead Content

DESIGN CERTIFIED

Green Choice® The Eco-Friendly Gas-Fired Burner

A.O. Smith
Innovation has a name.

EES

Electric Light Commercial Water Heater

EES

KEY FEATURES

BLUE DIAMOND® GLASS LINING

Blue Diamond® Glass Lined Tank. Maximum protection against hard water and corrosion.

GLASS COATED HEATING ELEMENT

Helps to prevent scale formation and extends the life of the heating element.

TEMPERATURE CONTROL KNOB

Allows you to set the temperature anywhere between 25°C to 75°C.

THERMAL CUTOUT

If the water temperature exceeds the preset level, the thermal cut-out cuts off the power supply to assure safety.

SAFETY VALVE

The safety valve is designed to automatically relieve pressure and discharge water in case the pressure overshoots the preset limits.

INSULATION FOAM 50mm,

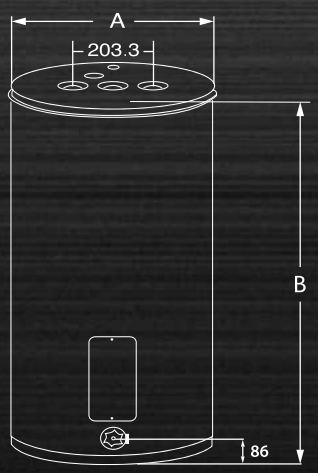
50mm boonryeok excellent heat dissipation effect of preventing the other products with polyurethane insulation the more excellent.

STRESS TEST

A. O. Smith to ensure the best quality self- testing 21kgf / cm2.

Technical Specification

Model		EES 30	EES 40	EES 50	EES 80	EES 120
Volume [L]		120	150	190	300	455
Power [W]		6000				
Voltage/Frequency [V/Hz]		220V/50Hz				
Rated water pressure [Bar]		8				
Form of water inlet & outlet		Top inlet / Top outlet				
Dimensions	A [mm]	530	530	520	620	720
	B [mm]	940	1115	1395	1470	1635
Net Weight [kg]		43	53	60	94	153



SERVICE EXCELLENCE

A. O. Smith comes with the assurance of the highest quality of service. We strongly believe in customer delight through our 3 P's - Product, Pre and Post-sales services. We have a vast network to cater to varying industries, ranging from Hotels, Hospitals, Manufacturing units, Airports and High-end villas across the country. We have created an ecosystem to provide a service par excellence to ensure an uninterrupted supply of quality hot water. We promise - whenever and wherever you need us, we'd just be a call away.

Our 4-step Service Support Approach

1 

Sizing and Selection

We consult our clients and provide technical support by

1. Calculating the heat load requirements for the site
2. Sizing and Selection of the best-suited product
3. System Designing and Space Allocation

2 

Training Support for Channel Partners

The authorized PAN India network of channel partners are regularly trained by A. O. Smith experts

3 

Regional Service Team

Regional service teams are dedicated for each zone to solve any concern from channel partners

4 

Central Service Team at HO

The Central Team supports with training, availability of spare parts & provides clarification on technical queries

All service cases are attended to and monitored by the regional sales team as well for better communication with clients.

The above-stated approaches are curated keeping in mind that the clientele enjoys the same amount of pleasure it did while purchasing our product.

We focus on providing the most cogent and beneficial after-sales support to attain maximum clientele satisfaction and reaffirming their trust and loyalty to our brand and offerings.