WATERDROP® A Fossil Fuel Free Drop - In Hot Water System

The WaterDrop[®] system is a pre-manufactured drop-in, central heat pump plant that uses CO2 as a refrigerant. The WaterDrop[®] system is ozone-friendly and doesn't contribute to global warming.

The WaterDrop[®] system takes the worry and hassle out of designing the perfect CO2 refrigerant domestic hot water plant for any building.



Complete Drop-In Plug & Play Systems

WaterDrop[®] systems are designed and fabricated off-site, then delivered when needed. After the skid is physically secured on-site, the only connections required are mains power, and the water connections: cold water in, hot supply water, and recirculation.



A Shift In Strategy

Shifting from fossil fuel boilers to heat pumps requires a different method for meeting peak loads. Boilers use a recovery strategy with slightly oversized equipment to ensure enough hot water can be made on demand. Heat pumps operate at a lower recovery rate, so the strategy is to pair an array of heat pumps with an appropriate amount of primary storage to provide enough hot water for the peak loads. The whole system is designed to recover and store hot water within 4-8 hours to be ready for the next peak load cycles. With this strategy, energy consumption can be shifted to off-peak times to reduce strain on utilities and potentially reduce costs.

What Makes a WATERDROP[®] so Efficient



At The Heart of the WaterDrop® Systems is an Array of SANCO2 Heat Pumps

Using CO2 refrigerant technology, SANCO2 heat pumps have the highest COP of any hot water system, reaching up to a coefficient of 5.5. This is because CO2 refrigerant reaches a trans critical state not achieved by other refrigerants, increasing the energy output of the system.

Variable Speed Inverter Compressor

Greater energy efficiency is achieved by using an inverter-driven compressor, fan and water pump. With the ability to operate the compressor, pump and fan at variable speeds, the unit can operate at peak efficiency in all conditions. Offered as a packaged system, WaterDrop[®] has the advantage of reduced complexity and taking up less space than site-built plants. WaterDrop[®] systems offer flexibility in where they can be installed, be it roof top, adjacent to the building, parkade or other locations.

Three WaterDrop® Products Available Through Distributors



Complete WaterDrop[®] Standard Skid Package Includes:

- Heat pumps, primary storage, and swing tank
- Ideal for new construction
- Up to 222 gph output
- Up to 185 kbtuh recovery rate
- Fully insulated enclosure performs better than mechanical rooms

WaterDrop® Droplets

- Heat pump array with separate storage
- Ideal for new construction or full retrofit
- Flexibility for building designs with less space
- Perfect for smaller buildings
- Works with existing storage

WaterDrop[®] Part Load System

- Designed to complement existing gas water heaters
- Ideal for new and existing buildings
- Perfect for meeting heat pump building code requirements
- Up to 92 BTU recovery rate
- Fully insulated enclosure performs better than most mechanical rooms

Drop-In Design • Factory Assembled • Factory Startup Service • Extended Warranty Available

High Performance, Energy Efficient Water Heating with CO2 Heat Pumps











Build for the Future

Reducing carbon emissions is essential to meeting our climate action goals. WaterDrop[®] systems provide fossil fuel free hot water now, while saving on utility costs.

Choosing a WaterDrop® system is a great step for a better future. More and more jurisdictions are enacting fossil fuel bans. With a WaterDrop® system, you're ahead of any adoption curve while still providing building occupants with plenty of reliable, earth friendly hot water. Become part of the solution.

CONTACT US TODAY Call: 778-326-0158 Visit: waterdropsystems.com Email: info@waterdropsystems.com

