

Air and water source heat pump "Eco-Cute"

THE WORLD'S FIRST!! **unimo** AWW

Industrial and commercial dual hot water and chilled water supply

Air and water source CO₂ heat pump, automatically changes operating mode. Satisfies increasing market demand for resourceful renewable energy systems.

Efficient use of renewable energy

Dual mode unimoAWW can provide both chilled water and hot water simultaneously.

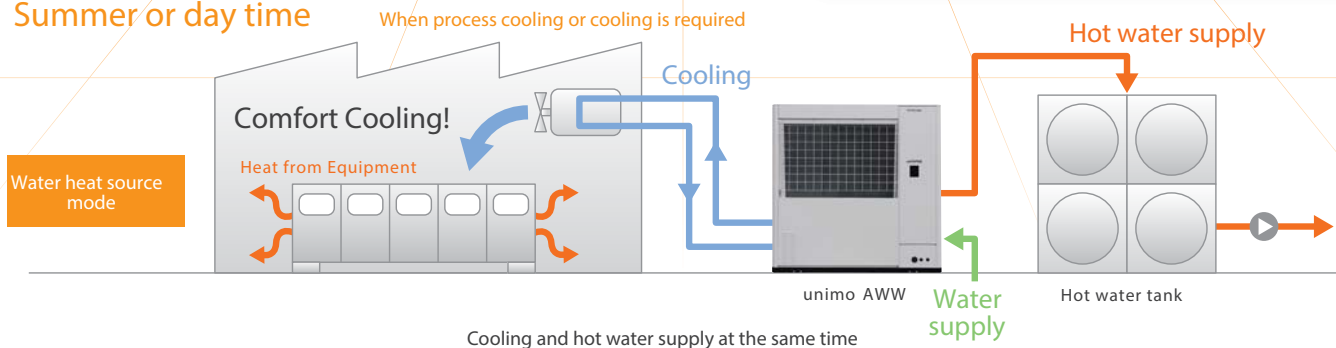
1. Chilled water is generated using the water source when process cooling or cooling is required.
2. When cooling water is not required, unimoAWW generates hot water using the air as its heat source.
3. If ground bore water is used as a heat source, unimoAWW can operate using the air source in summer and water source in winter

Simple system design

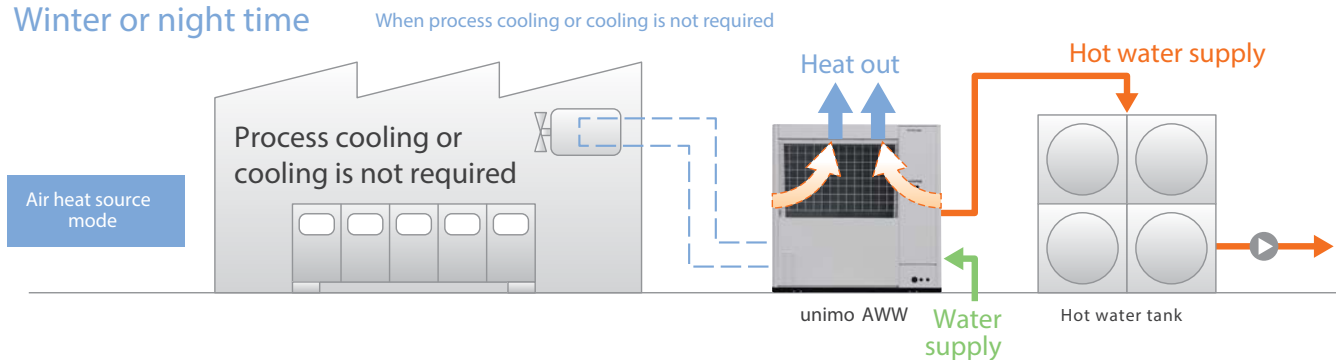
unimoAWW system design is compact and easy to install.



Summer or day time

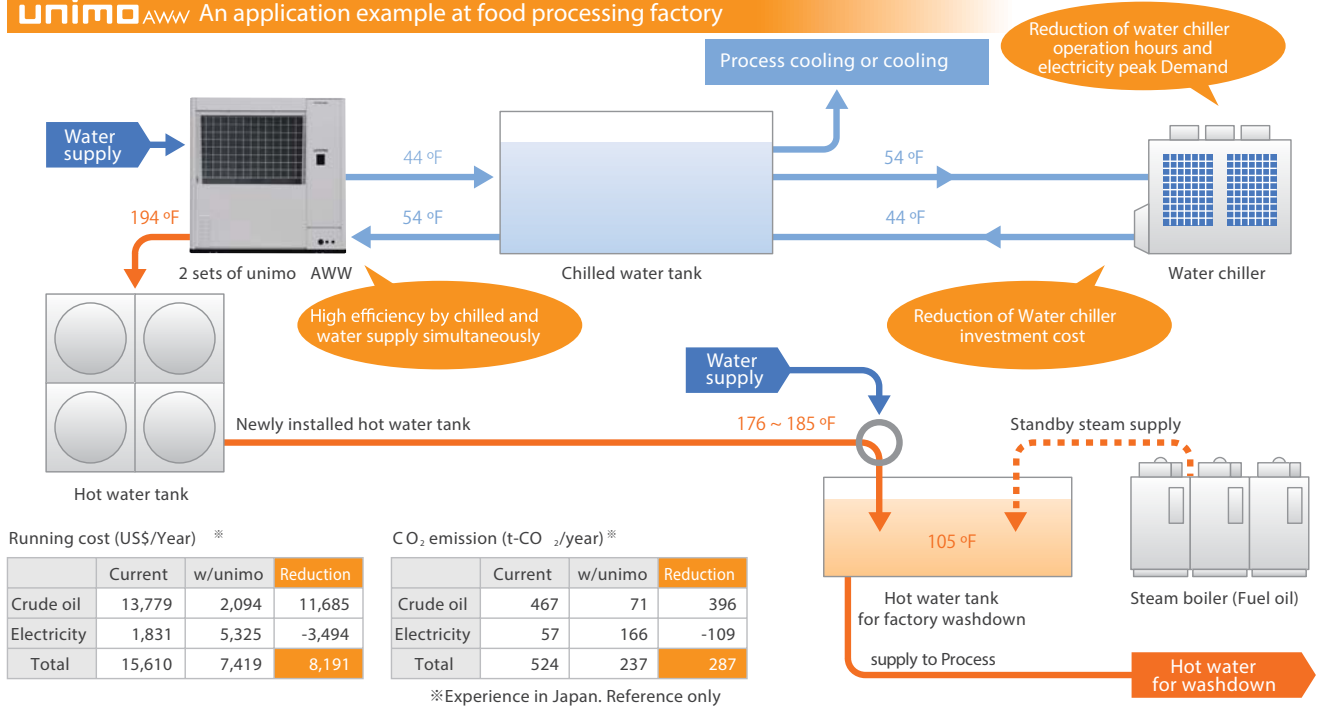


Winter or night time



The system can generate hot water by using air as heat source when there is no cooling load

unimo_{AWW} An application example at food processing factory



Running cost (US\$/Year) ※

	Current	w/unimo	Reduction
Crude oil	13,779	2,094	11,685
Electricity	1,831	5,325	-3,494
Total	15,610	7,419	8,191

CO₂ emission (t-CO₂/year) ※

	Current	w/unimo	Reduction
Crude oil	467	71	396
Electricity	57	166	-109
Total	524	237	287

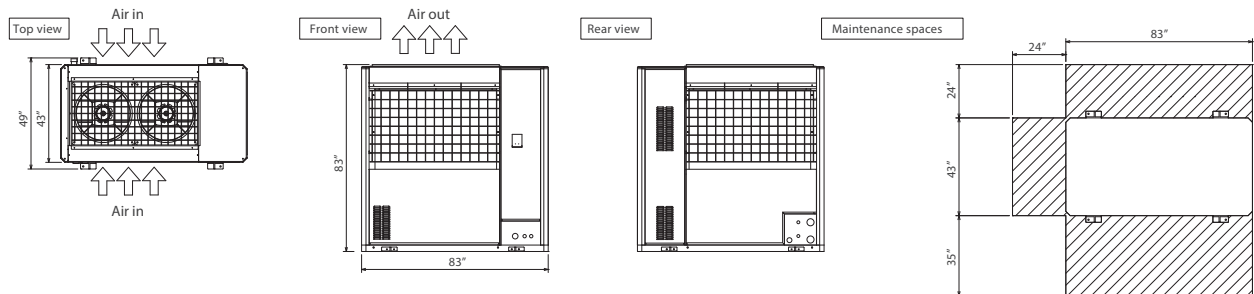
※Experience in Japan. Reference only

unimo_{AWW} Specifications

Model		HE-HWAW-2HTC					
Power		3-phase 480V AC 60 Hz					
Conditions		Standard	Interim ^{※3} periods	Heat recovering	Summer ^{※4}	Cooling	Winter ^{※5}
Heat source mode		Water		Air		Water	
Heating performance	Heating capacity (kW)	86.8	79.2	96.0	84.6	81.8	73.5
	Absorbed power (kW)	22.6	19.7	23.2	21.9	22.4	25.1
C.O.P heating		3.8	4.0	4.1	3.9	3.7	2.9
Cooling performance	Cooling capacity (kW)	65.8	-	76.3	-	60.9	-
	C.O.P cooling	2.9	-	3.3	-	2.7	-
Total efficiency		C.O.P total		6.8	-	7.4	-
Water heat source conditions	Standard	59°F → 50°F					
	Heat recovery	72°F → 62°F					
	Cooling	54°F → 44°F					

Outer dimensions		(in)	W 83 x L 44 x H 83
Weight		(lb)	3,328 (net) 3,373 (operating)
Operating ranges	Water inlet temp	41 to 149 °F	
	Chilled water inlet temp	28 to 98 °F	
	Hot water outlet temp	149 to 194 °F	
	Ambient temp	14 to 110 °F	
Remarks	※ Air and water heat source modes are available		
	※ Capacity at 149 °F hot water outlet temperature		
	※ Capacity at DB61 °F / WB54 °F and water supply temperature at 62 °F		
	※ Capacity at DB63 °F / WB43 °F and water supply temperature at 75 °F		
	※ Capacity at DB45 °F / WB43 °F and water supply temperature at 48 °F		
Note: Max. operating water pressure 72 psi, please install an approved pressure limiting valve if the inlet pressure is to exceed this value.			

unimo_{AWW} Outer dimensions and maintenance spaces



MAYEKAWA
MYCOM

Subject to change without notice.

Mayekawa USA, Inc. (MYCOM)
Tel: (800)806-9266
Email: info@mayekawausa.com
Website: www.mayekawausa.com