

THERMOPLUS[®]
AIR INC.

WaterWise A/C[®]
Water Heating Air Conditioning Units



for better air...

INTRODUCTION

Thermoplus Air (a division of Dectron Internationale) provides specialty products for commercial and industrial heating and air-conditioning applications. Dectron Internationale began 20 years ago by developing the DRY-O-TRON® energy recycling pool dehumidifier. Since then it has led the industry in providing indoor comfort solutions with an emphasis on energy recovery and efficiency. Recently the Thermoplus Air engineers applied DRY-O-TRON® energy recycling technology to one of their commercial air-conditioning units. The result is the WaterWise A/C®, a unit that makes no compromises in air-conditioning performance yet recycles the energy to deliver free potable hot water. It is now possible to use both hot water and air-conditioning and only pay for one. It's an ideal arrangement in today's competitive business environment. Take a look at the Thermoplus Air WaterWise A/C® today, and see why the innovation never stops at Dectron Internationale.

The WaterWise A/C® Advantage

Thermoplus Air, using the latest computer assisted design software, has designed the WaterWise A/C® with many unique features, all of which contribute to its extraordinary performance and functionality.

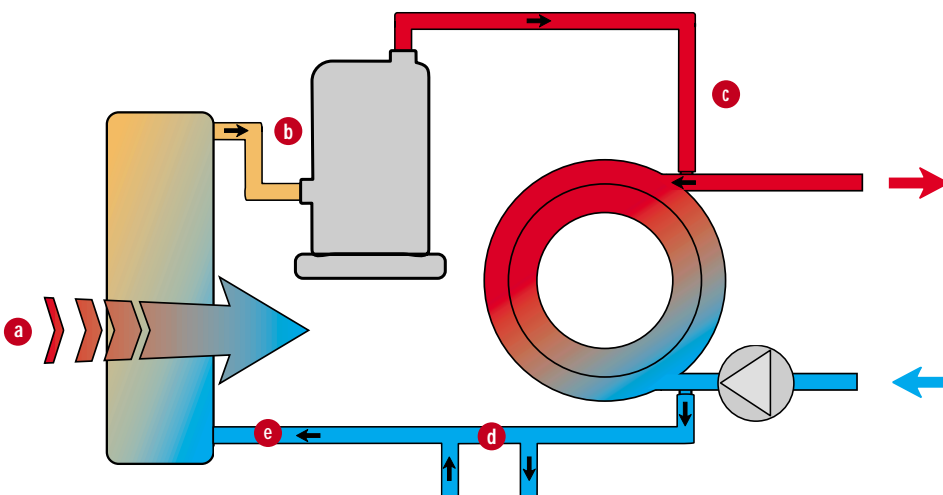
By recovering the energy that standard air-conditioning systems expel outdoors to preheat hot water, the WaterWise A/C® system can save as much as \$750 or more per ton of cooling per year.* That's over \$3,500 per year for a typical 5 ton unit.

If your facility requires both air-conditioning and hot water, contact your local WaterWise A/C® dealer today and see how you too can economize with WaterWise A/C®.

** Savings based on an average of 6 hours of air-conditioning operation per day, 210 gallons per day per ton of cooling, cold water in at 70° F, \$0.07 per KWH for electricity, and electrically heated hot water. Savings with 60% efficient gas heated hot water at \$0.70 per therm, would be \$430 per year per ton of cooling. Savings will vary with application and location.*

LEGEND

- a** Warm air enters the unit giving up its heat energy to the refrigerant, cooling and dehumidifying the air.
- b** The warmed refrigerant enters the compressor where the temperature is amplified.
- c** The hot refrigerant enters the water heating exchanger and is cooled while heating the water.
- d** With an optional external condenser when the water is hot, energy is rejected to the outdoor air or to water, allowing the air-conditioner to continue running.
- e** The cold refrigerant enters the evaporator to start the cycle again.



Indoor Horizontal Model

FEATURES AND BENEFITS

Commercial air-conditioning can take place in extreme environments; add to this hot water generation and it becomes clear that the equipment must be designed for the rigors of the task.

A loss of air-conditioning can result in more than temporary discomfort; it can also result in a loss of business. Thermoplus Air understands the importance of your business and has designed the WaterWise A/C® accordingly.

Below are some of the features that put the Thermoplus Air WaterWise A/C® ahead of the crowd. Ask for these features.



WaterWise A/C® Indoor Model



STANDARD FEATURES INCLUDE:

- **Completely Packaged Unit:**
The unit contains all the necessary pumps, controls and sensors. Connect the water, the power, and a standard air conditioning thermostat and its **ready to go**, as an air-conditioning water heater.
- **High Performance Air-conditioning:**
Copeland Compliant Scroll compressors, 6 row evaporator coils and expanded condenser surfaces result in **superior durability, comfort, efficiency and quiet operation.**
- **High Static Fan:**
Commercial air for **commercial applications.**
- **External Condenser Ready:**
Do you require more air-conditioning than hot water? Add an external condenser **at any time.** It's designed to operate 12 months of the year.
- **Fail Safe Controls:** The WaterWise unit has advanced refrigeration and sequence controls to provide trouble free operation in the most demanding environments. **Air-conditioning and hot water when you need it.**

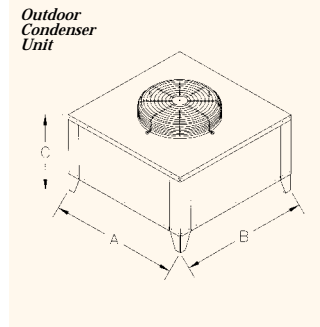
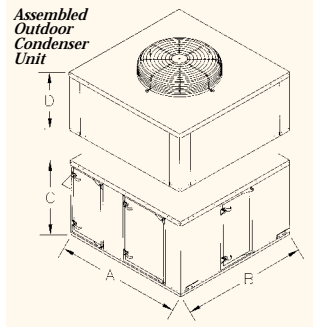
- **Vented Double Shell Heat Exchanger:**
WaterWise A/C® has a copper water heat exchanger that offers **high heat transfer and low fouling.** It also meets the requirements for potable water.
- **Heavy Duty Construction:**
The standard weather proof cabinet is made of heavy gauge zinc coated metal; it is powder coat painted on both sides, including the edges, to prevent corrosion. This quality construction is designed to last **20 years or more. It's designed to be installed indoors or outdoors.**
- **Vinyl Coated Insulation:**
Allows wipe clean convenience.
- **Hypoxy® Coated Air Coils:**
On both the unit and condenser, provides **added protection** against corrosion in tough commercial environments.
- **Rooftop or Horizontal Configurations:**
Provides the right solution regardless of your space restrictions.

AVAILABLE OPTIONS INCLUDE:

- **External Condenser:**
Air-cooled or water-cooled condensers are available for **12-month air-conditioning.**
- **Stainless Steel Cabinets:**
On the unit or the air-cooled condenser, provides even greater durability.
- **Cupronickel Heat Exchangers:**
Add nickel to steel and you get stainless steel; add it to copper and you get cupronickel. It's still high performance, still code approved, but a **more durable** water heating heat exchanger.
- **Hot Gas Reheat:**
Provides superior **dehumidification** where required.
- **CFC Free Refrigerant:**
We offer 407C; it's better for the environment, and uses **standard available components.** There's no down time waiting for special parts.

WATERWISE A/C® SPECIFICATIONS

Model	Dimensions					
	A	B	C	D	Wgt Condenser app.	Combined Wgt app.
WWA042	42	42	25	18	150	680
WWA066	42	56	25	18	220	880
WWA088	48	60	30	20	260	1040
WWA116	54	78	30	20	350	1350



Model	Entering Water Temp.	Total Cooling Capacity	Sensible Cooling Capacity	CFM	Hot Water Capacity	GPM	Leaving Water Temp	GPH @ 60' temp rise	Allowable External Pressure Drop ft. Water	Power Input watts	EER	COP
WWA042	80	41651	29304	1040	49337	12	89	103	10	2587	16.10	5.59
	100	38886	28268	1040	48288	12	108	101	10	3090	12.58	4.58
	120	36332	27285	1040	47826	12	128	100	10	3703	9.81	3.79
WWA066	80	66360	46128	1600	78555	19	89	164	18	4038	16.43	5.70
	100	62004	44524	1600	76151	19	108	159	18	4610	13.45	4.84
	120	57303	41668	1600	75435	19	128	157	18	5778	9.92	3.83
WWA088	80	87492	61610	2160	104460	25	89	218	14	5567	15.72	5.50
	100	82320	59542	2160	102557	25	109	214	14	6525	12.62	4.61
	120	76301	57127	2160	100714	25	128	210	14	7749	9.85	3.81
WWA116	80	115606	81739	2880	138301	38	88	288	24	7448	15.52	5.44
	100	108684	78979	2880	135337	38	107	282	24	8608	12.63	4.61
	120	100308	75690	2880	132028	38	127	275	24	10093	9.94	3.83

Correction factors for different airflow rates Interpolation permitted	CFM	Total Cooling Capacity	Sensible Cooling Capacity	Hot Water Capacity	GPH @ 60' temp rise	Power Input watts	EER	COP
1.25	1.02	1.12	1.03	1.03	1.10	0.92	0.93	
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
0.75	0.95	0.88	0.96	0.96	1.00	0.93	0.95	

APPLICATIONS

A few of the many opportunities to economize with WaterWise A/C®

Application	Air-condition the...	Use the hot water for...
Restaurants	dining area kitchen area	the kitchen
Schools Universities	cafeteria gym	the kitchen the showers
Hotels Motels / Apartments / Condos	common areas lobby	the hot water system the laundry the pool
Laundries Coin Op	anywhere	the laundry
Factories Food processing	working areas office space	hot process water
Seniors Housing	common areas	hot water system
Gas Stations	store	the car wash
Beauty Salons	salon	hot water system
Spas / Health Clubs	work out area	showers
Hospitals	common areas kitchens cafeteria rehab	hot water system hydrotherapy



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