AHTT

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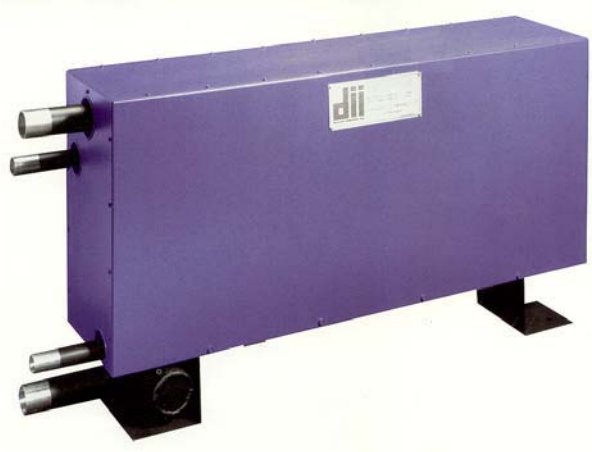
DESUPERHEATERS

Heat Exchangers
For Free Hot Water

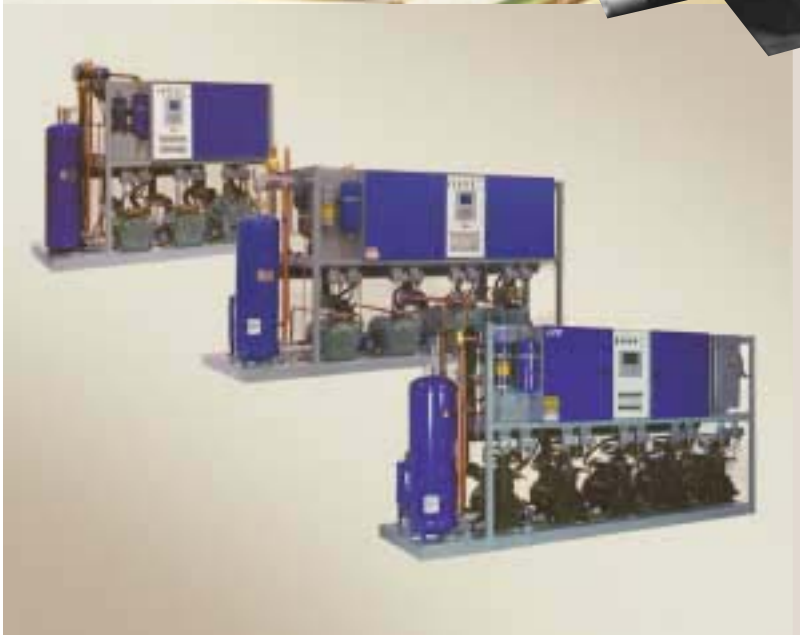


Freon

Ammonia

doucette industries, inc.

Refrigeration Application Specialists



AC Series

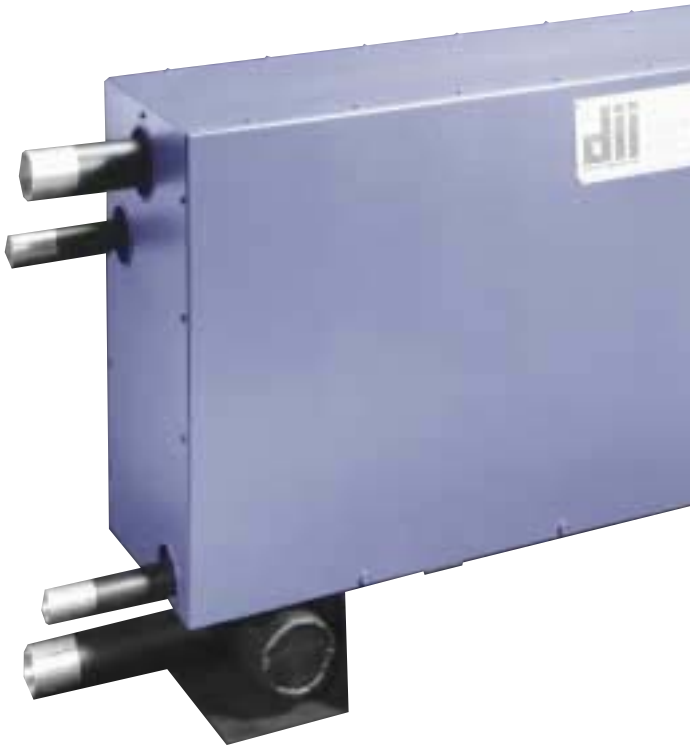
Refrigeration, Air Conditioning and Heat Pump Systems
5 - 200 HP

Heats Hot Water Utilizing Waste Heat from Air Conditioners, Chillers and Heat Pump Systems

The Doucette AC Series Substantially Reduces You Hot Water Heating Costs

- Heats potable water up to 60 °C using waste heat
- Typical Payback Period of Two Years or Less
- Reduces A/C operating costs 5% to 15%
- Mechanical Cleanable Counterflow Design
- Compact and Ready to Install
- Works with All Major Manufacturers' Systems

The Doucette AC Series™ heat recovery unit delivers substantial energy savings by heating potable water by recovering waste heat from refrigeration air conditioning, chiller and heat pump systems. The AC Series™ can effectively heat water up to 60°C, and is ideal for systems ranging from 5 – 200 HP using reciprocating, rotary and screw compressors. The unit arrives as a standard factory package that is ready to install, and can be applied to both air- and water-cooled systems using R-404a, R-507, R-22 and other refrigerants.



Yearly Energy Savings and Estimated Payback Time

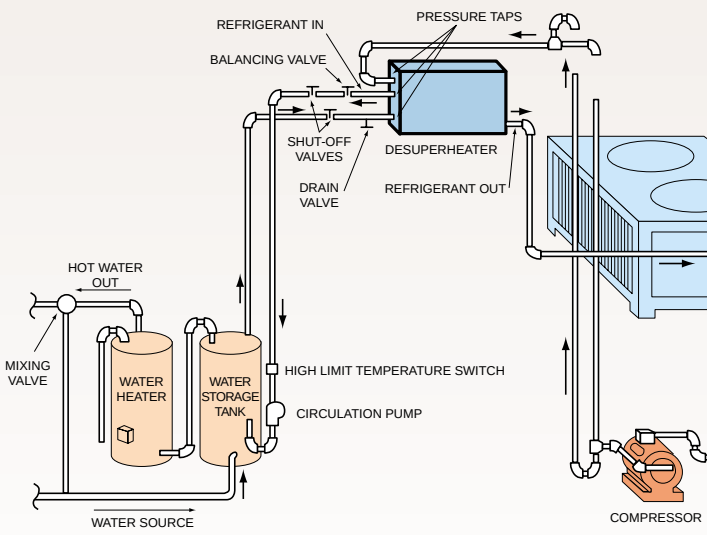
System Capacity	Electric	Gas	Typical Payback
5 Ton	$1,260	$405	1-2 year(s)
20 Ton	$5,034	$1,626	1-2 year(s)
50 ton	$12,585	$4,065	8-16 months
100 ton	$25,170	$8,130	6-12 months
200 ton	$50,340	$16,260	5-10 months

Basis****? To be confirmed indicative savings only

Improve A/C System Operation

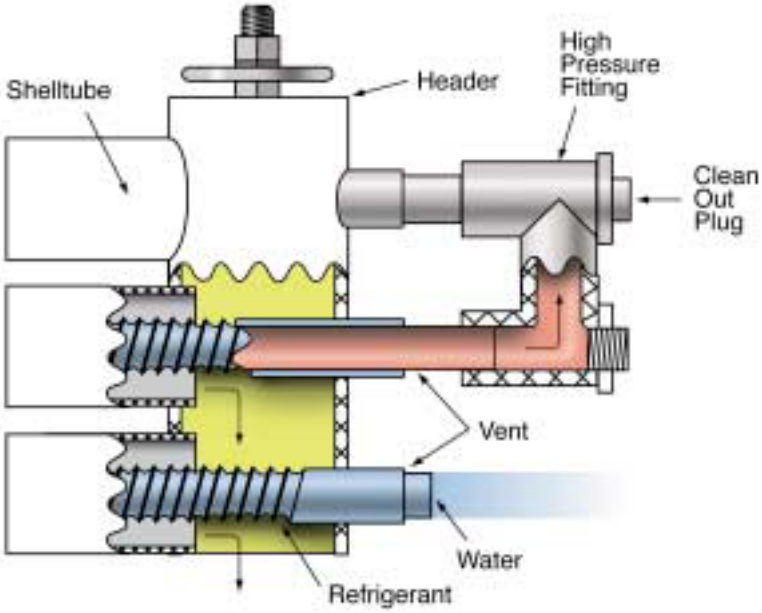
Installation of a Doucette AC Series™ heat recovery unit into your existing cooling configuration is equivalent to adding 15% more condenser capacity. The result is a 5% to 10% reduction in reduced air conditioning operating costs, enhanced air conditioner performance and prolonged operational life.

Applicable to All Brands of Refrigeration Equipment and Refrigerant Types

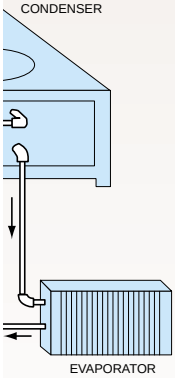


Vented Double Wall for Safety

The AC Series heat exchanger tubes are designed with patented vented double-wall copper construction for an added measure of safety and reliability. The double-wall system prevents contamination of the potable water from the refrigeration circuit. Each tube is fluted such that a vent path is created between the outer and inner tube. If a tube leak should ever occur, the gas vents to the atmosphere for easy detection. This double protection system meets all national, state, local and provincial health and plumbing codes requiring double separation and cross connection safety requirements.



Doucette AC Series™ heat recovery units can be used with any commercial air conditioning system where waste heat is available. The unit is designed to integrate with all brands including: Trane, Carrier, McQuay, York, Governair, Dunham-Bush, Bohn, Mammoth, Lennox and other brands.



The AC Series™ installs conveniently in-line with the compressor discharge piping, and in close proximity to the compressor to avoid piping costs and pressure drop. Its compact design permits mounting in practically any location, and the unit comes with frame and brackets. An optional indoor/outdoor insulated cabinet is available if needed.

Enhanced Reliability with “Free-Floating” Tube Construction

Temperature differences between the water and refrigerant can subject tubing to thermal shock. Thermal shock can work harden the tubing of the heat exchanger, leading to premature failure. Unlike single wall, plate and shell/tube heat exchangers, the Doucette AC Series™ heat recovery unit eliminates work hardening through a patented tube design that mechanically “free-floats”, allowing the inner tubes to expand and contract as needed.

Typical Applications

- Hotels
- Condominiums
- Restaurants
- Schools
- Universities
- Hospitals
- Military Bases
- Office Buildings
- Supermarkets
- Ice Rinks
- Anywhere hot water is needed for domestic and reheat purposes

Typical Payback Within Two Years*

Doucette has staked its reputation in the heat recovery industry as a leader for more than a decade with thousands of systems installed worldwide. Their heat exchangers rely on proven technology and over 16 years of field experience for high performance operation, ensuring product safety and reliability.

AC Series Physical Data

Single Refrigerant Circuit

dii Model Number	Nominal HP	Length mm	Width	Height	Refrig. O.D.	Water O.D.	Shipping Weight (Kg)
AC 5	5	864	69	647	22.5	16	21
AC 7-1/2	7-1/2	1054	69	647	25.5	16	30
AC 10	10	1233	69	649	25.5	16	36
AC 15	15	1233	121	649	25.8	22	64
AC 20	20	1290	121	649	25.8	22	73
AC 25	25	1233	171	649	25.8	25.5	96
AC 30	30	1290	171	649	50.5	25.5	109
AC 40	40	1290	222	649	50.5	25.5	146
AC 50	50	1290	273	649	50.5	25.5	182
AC 60	60	1290	324	649	51.4	25.5	218
AC 70	70	1316	375	649	51.4	50.5	254
AC 80	80	1316	425	649	51.4	50.5	640
AC 90	90	1316	476	649	51.4	50.5	327
AC 100	100	1316	527	649	79.3	50.5	364
AC 120	120	1316	527	649	79.3	50.5	436
AC 140	140	1316	730	682	79.3	50.5	509
AC 160	160	1329	832	682	79.3	50.5	582
AC 180	180	1329	933	682	79.3	50.5	655
AC 200	200	1329	1035	682	79.3	50.5	727

Dual Refrigerant Circuit

dii Model Number	Nominal HP	Length	Width	Height	Refrig. O.D.	Refrig. O.D.	Shipping Weight (Kg)
AC 15-2	15	1233	171	647	16	22	68
AC 20-2	20	1290	171	647	16	22	77
AC 30-2	30	1233	262	655	25.7	25.7	114
AC 40-2	40	1287	262	655	26	26	150
AC 60-2	60	1290	375	655	50.5	26	223
AC 80-2	80	1290	476	655	50.5	50.5	296
AC 100-2	100	1290	578	655	50.5	50.5	368
AC 120-2	120	1290	679	655	50.5	50.5	440
AC 140-2	140	1290	781	655	50.5	50.5	514
AC 160-2	160	1316	883	655	50.5	50.5	586
AC 180-2	180	1316	984	655	50.5	50.5	664
AC 200-2	200	1316	1086	660	79.4	79.4	736

Circulator Pumps

AC Model	Pump Model (Shipped Loose)	HP	Power V/ø/HZ	Connections (Inches)	Rating (Head Vs. GPM) 5 ft.	10 ft.	15 ft.	20 ft.
AC 5-10	UP 15-18SU	1/25	115/1/60	3/4 Union	5 GPM			
AC 15-25	UP 15-42SU	1/25	115/1/60	3/4 Union	10	4 GPM		
AC 30-70	UP 25-64SF	1/12	115/1/60	1 Flange	15	12	7 GPM	
AC 80-200	UP 43-75BF	1/6	115/1/60	1-1/2 Flange	38	30	23	14 GPM