

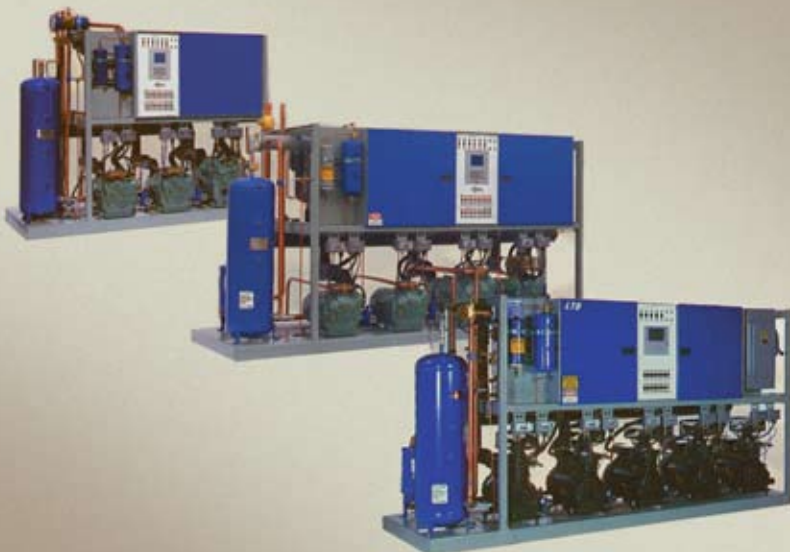
doucette industries, inc.

**Refrigeration Application
Specialists**



**AC Series
5 - 200 HP**

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



The Doucette AC Series Substantially Reduces Your Hot Water Heating Costs

- Heats potable water up to 140 °F using waste heat
- Typical Payback Period of Two Years or Less
- Reduces A/C operating costs 5% to 10%
- 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 and heat pump systems. The AC Series™ can effectively heat water up to 140°F, and is ideal for systems ranging from 5 – 200 HP using reciprocating, scroll 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



Yearly Energy Savings and Estimated Payback Time

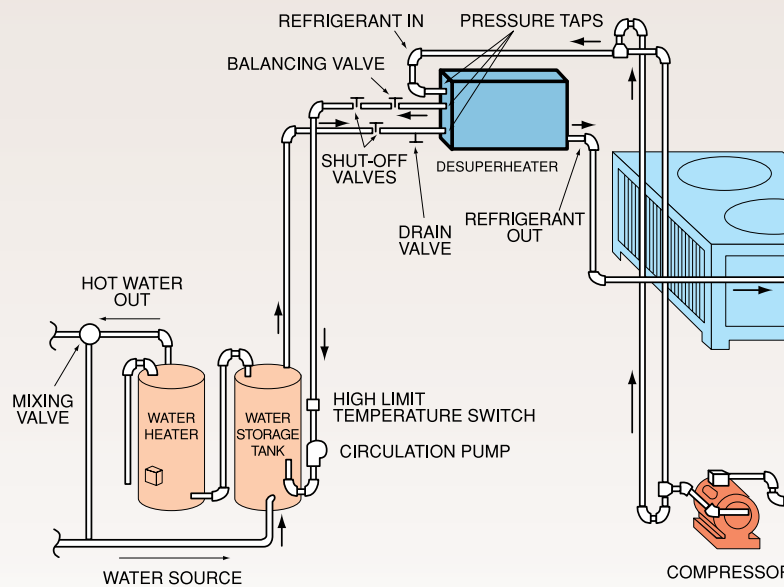
System Capacity	Hot Water Heating		Typical Payback
	Electric*	Gas**	
5 Ton	\$1,260	\$405	1-2 year(s)
20 Ton	\$5,034	\$1,626	1-2 year(s)
50 ton	\$12,585	\$4,065	8-16 months
100 ton	\$25,170	\$8,130	6-12 months
200 ton	\$50,340	\$16,260	5-10 months

Basis: * 12 hours/day, 300 days/year, 7.5¢ / Kwh
 **12 hours/day, 300 days/year, .60¢ / CCF, 85% gas efficiency

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 chiller operating costs, enhanced system performance and prolonged operational life.

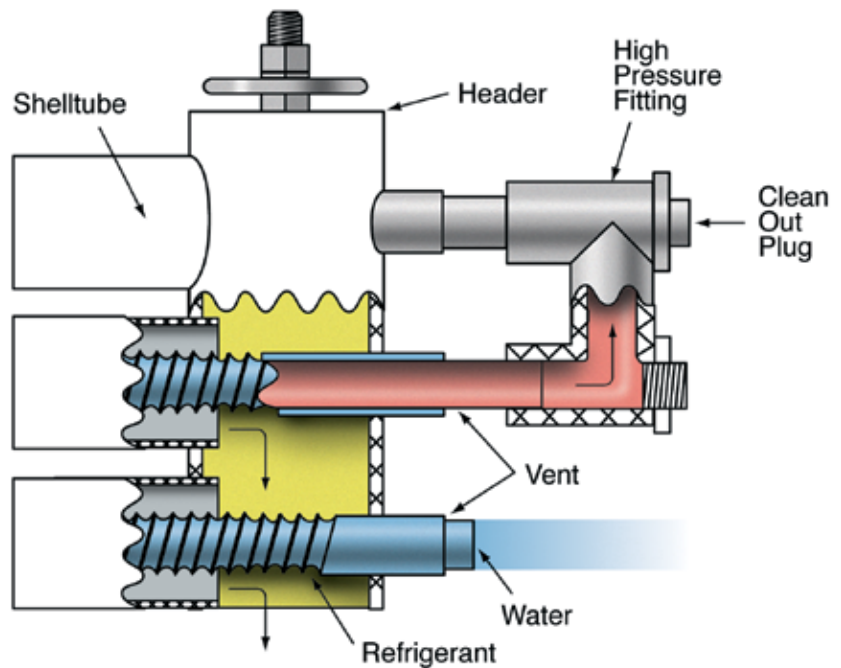
Applicable to All Brands of Refrigeration Equipment and Refrigerant Types





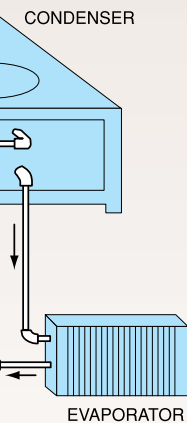
Vented Double Wall for Safety

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	Width	Height	Refrig. O.D.	Water O.D.	Shipping Weight (lbs.)
AC 5	5	34	2-3/4	25-1/2	1-1/8 ID	5/8	46
AC 7-1/2	7-1/2	41-1/2	2-3/4	25-1/2	1-1/8 ID	5/8	65
AC 10	10	48-17/32	2-3/4	25-9/16	1-1/8 ID	5/8	80
AC 15	15	43-5/8	4-3/4	25-13/16	1-3/8	7/8	140
AC 20	20	50-7/8	4-3/4	25-13/16	1-5/8	7/8	160
AC 25	25	43-5/8	6-3/4	25-13/16	1-5/8	1-1/8	210
AC 30	30	50-7/8	6-3/4	25-13/16	2-1/8	1-1/8	240
AC 40	40	50-7/8	8-3/4	25-13/16	2-1/8	1-3/8	320
AC 50	50	50-7/8	10-3/4	25-13/16	2-1/8	1-3/8	400
AC 60	60	51-7/8	12-3/4	25-13/16	2-5/8	1-5/8	480
AC 70	70	51-7/8	14-3/4	25-13/16	2-5/8	2-1/8	560
AC 80	80	51-7/8	16-3/4	25-13/16	2-5/8	2-1/8	640
AC 90	90	51-7/8	18-3/4	25-13/16	2-5/8	2-1/8	720
AC 100	100	51-7/8	20-3/4	25-13/16	3-1/8	2-1/8	800
AC 120	120	51-7/8	24-3/4	25-13/16	3-1/8	2-1/8	860
AC 140	140	51-7/8	28-3/4	26-13/16	3-5/8	2-1/8	1120
AC 160	160	52-3/8	32-3/4	26-13/16	3-5/8	2-5/8	1280
AC 180	180	52-3/8	36-3/4	26-13/16	3-5/8	2-5/8	1440
AC 200	200	52-3/8	40-3/4	26-13/16	3-5/8	2-5/8	1600

Dual Refrigerant Circuit

dii Model Number	Nominal HP	Length	Width	Height	Refrig. O.D.	Water O.D.	Shipping Weight (lbs.)
AC 15-2	15	43-5/8	6-3/4	25-1/2	1-1/8	7/8	150
AC 20-2	20	50-7/8	6-3/4	25-1/2	1-1/8	7/8	170
AC 30-2	30	43-5/8	10-3/4	25-13/16	1-3/8	1-1/8	250
AC 40-2	40	50-7/8	10-3/4	25-13/16	1-5/8	1-3/8	330
AC 60-2	60	51-7/8	14-3/4	25-13/16	2-1/8	1-5/8	490
AC 80-2	80	51-7/8	18-3/4	25-13/16	2-1/8	2-1/8	650
AC 100-2	100	51-7/8	22-3/4	25-13/16	2-1/8	2-1/8	810
AC 120-2	120	51-7/8	26-3/4	25-13/16	2-5/8	2-1/8	970
AC 140-2	140	51-7/8	30-3/4	25-13/16	2-5/8	2-1/8	1130
AC 160-2	160	52-3/8	34-3/4	25-13/16	2-5/8	2-5/8	1290
AC 180-2	180	52-3/8	38-3/4	25-13/16	2-5/8	2-5/8	1460
AC 200-2	200	52-3/8	42-3/4	26	3-1/8	2-5/8	1620

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



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