



doucette industries, inc.

**Refrigeration  
Application  
Specialists**



## **CADS Series Desuperheater/ Water Heaters**

**For Ammonia  
Refrigeration Systems**

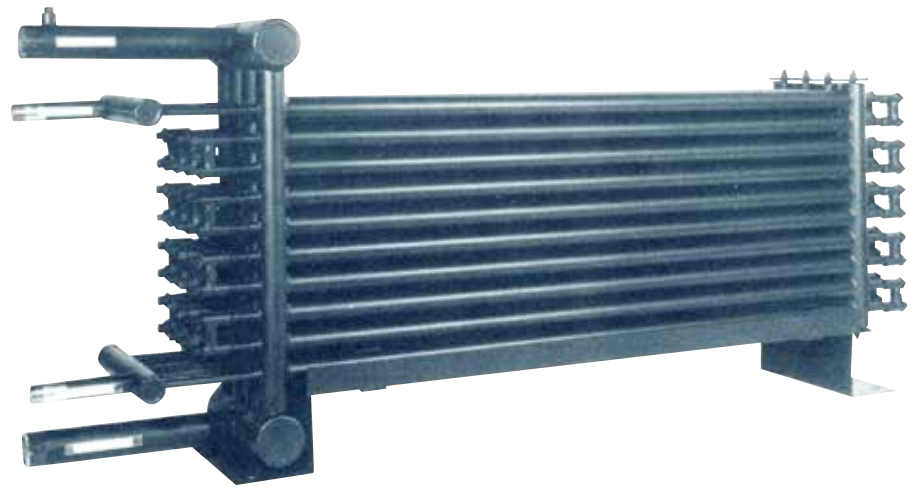
**Heats Hot Water Utilizing  
Waste Heat From Industrial  
Refrigeration Systems**

# The Doucette CADS Extends Your Hot Water Capability Inexpensively

- Lowers hot water heating costs by utilizing waste heat
- Heats potable water up to 140 °F
- Reduces refrigeration operating costs 3% to 5%
- Typical Payback Period of Two Years or Less
- Vented double-wall construction prevents cross contamination
- UL and USDA Listed with CRN

The Doucette Industries CADS Series Ammonia Desuperheater/Water Heater™ delivers cost-effective energy savings by heating potable water through the recovery of waste heat from industrial refrigeration systems. The CADS unit supplements potable hot water heating used for process applications by capturing “superheat” which accounts for approximately 10% to 15% of the total system heat of rejection. The CADS Series can effectively heat the water up to 140 degrees F.

- Food Processing Plants
- Food Distribution Plants
- Beverage Plants
- Ice Rinks



## Field-Proven Performance and Reliability

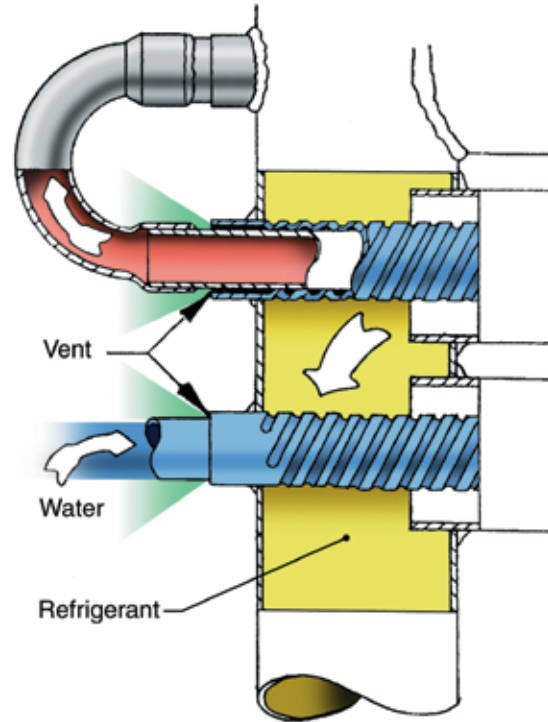
The CADS Series utilizes efficient counterflow design with low refrigerant pressure drop for efficient operation. Vented double-wall 304L Stainless Steel tube construction guarantees Desuperheater compliance with all code requirements and prevents cross-contamination between working fluids. The CADS Series includes positive oil and liquid refrigerant return design for compressor protection, and the unit is equipped with high pressure water fittings for mechanical cleaning.

## Improve Refrigeration System Performance

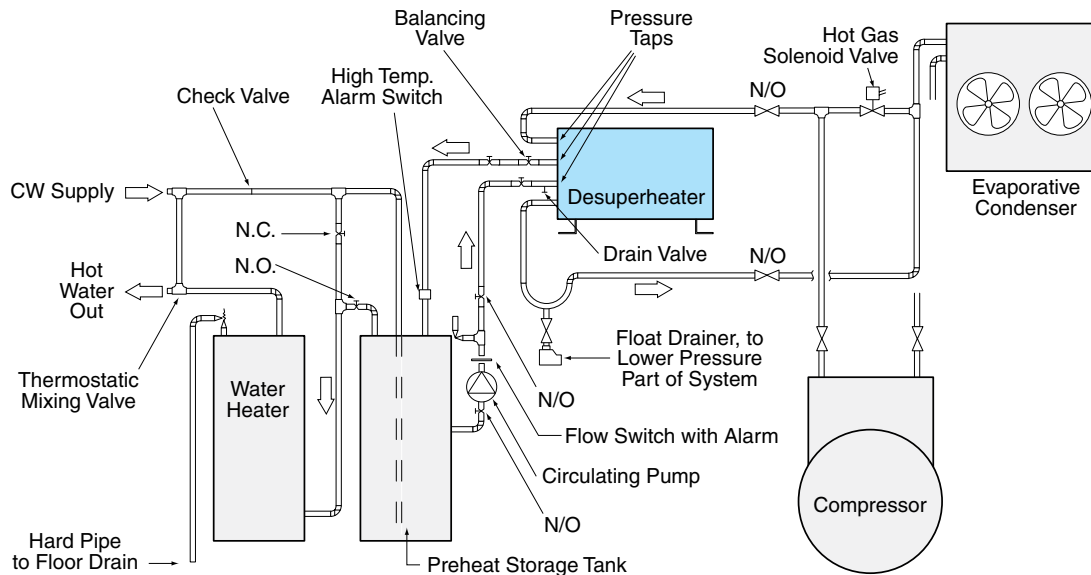
Installation of a Doucette Desuperheater/Water Heater™ into your existing cooling configuration is equivalent to adding 15% more condenser capacity. The result is a 3% to 5% reduction in refrigeration operating costs, enhanced condenser performance and prolonged compressor life.

## Vented Double Wall for Safety

The CADS series of ammonia Desuperheater/ Water Heater tubes are designed with vented double-wall stainless steel 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 is endorsed by the FDA and USDA for food protection.



## Applicable to All Brands of Ammonia Refrigeration Equipment



*Doucette Desuperheaters can be used for hot water with any industrial refrigeration system where waste heat is available. The unit is designed to integrate with all brands of compressors including: Frick, FES, Vilter, Mycom and others.*

*The CADS installs conveniently into a refrigeration system's existing refrigerant piping. The unit is installed in-line with the compressor discharge refrigerant piping in series with the existing condensers. The compact design of Doucette's Desuperheater permits mounting in practically any location, and the unit comes with frame and brackets. An optional indoor/outdoor insulated cabinet is typically supplied.*

# Doucette: Refrigeration Application Specialists

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 Ammonia Desuperheater/Water Heaters™ rely on proven technology and over 16 years of field experience for high performance operation, ensuring product safety and reliability.

## CADS Desuperheater/Water Heater Physical Data

### Recip Compressors (220°F Discharge Temperature)

dii Model Number	NH3* TR at 10/95F	GPM Potable Water 60-110F	Length (inches)	Width (inches)	Height (inches)	Refrig. B.W.	Water N.P.T.	Shipping Weight (lbs.)
CADS 5.5	25	1.23	59-7/8	3-3/4	24-5/8	2	5/8 OD	230
CADS 11M5.5	50	2.46	68-1/4	7-1/4	27-15/16	2	3/4	400
CADS 16.5M5.5	75	3.69	68-1/4	10-1/2	27-15/16	2-1/2	3/4	500
CADS 22M5.5	100	4.92	68-1/4	13-3/4	27-15/16	2-1/2	1	600
CADS 27.5M5.5	125	6.15	68-1/4	17	27-15/16	3	1	700
CADS 33M5.5	150	7.38	68-5/8	20-1/4	27-15/16	3	1-1/4	800
CADS 38.5M5.5	175	8.61	68-5/8	28-1/2	32	4	1-1/4	1000
CADS 44M5.5	200	9.84	68-5/8	31-3/4	32	4	1-1/4	1125
CADS 49.5M5.5	225	11.07	69-1/8	35	32	4	1-1/2	1250
CADS 55M5.5	250	12.30	69-1/8	38-1/4	32	4	1-1/2	1375
CADS 60.5M5.5	275	13.53	69-1/8	42-1/2	32-3/4	5	1-1/2	1500
CADS 66M5.5	300	14.76	69-1/8	45-3/4	32-3/4	5	1-1/2	1625
CADS 71.5M5.5	325	15.99	69-3/4	49	32-3/4	5	2	1750

### Screw Compressors (170°F Discharge Temperature)

dii Model Number	NH3* TR at 10/95F	GPM Potable Water 60-110F	Length (inches)	Width (inches)	Height (inches)	Refrig. B.W.	Water N.P.T.	Shipping Weight (lbs.)
CADS 8	25	1.21	59-3/4	3-3/4	32-5/8	2	5/8 OD	350
CADS 16M8	50	2.43	68-1/8	7-1/4	36	2	3/4	500
CADS 24M8	75	3.65	68-1/8	10-1/2	36	2-1/2	3/4	625
CADS 32M8	100	4.86	68-1/8	13-3/4	36	2-1/2	1	725
CADS 40M8	125	6.08	68-1/8	17	36	3	1	825
CADS 48M8	150	7.30	68-5/8	20-1/4	36	3	1-1/4	925
CADS 56M8	175	8.52	68-5/8	28-1/2	40-1/4	4	1-1/4	1300
CADS 64M8	200	9.72	68-5/8	31-3/4	40-1/4	4	1-1/4	1450
CADS 72M8	225	10.95	69-1/8	35	40-1/4	4	1-1/2	1600
CADS 80M8	250	12.16	69-1/8	38-1/4	40-1/4	4	1-1/2	1750
CADS 88M8	275	13.38	69-1/8	42-1/2	40-1/4	5	1-1/2	2000
CADS 96M8	300	14.58	69-1/8	45-3/4	40-1/4	5	1-1/2	2150
CADS 104M8	325	15.81	69-3/4	49	40-1/4	5	2	2300



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