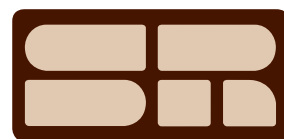


HEAT EXCHANGERS FOR MILITARY APPLICATIONS



**SUPER
RADIATOR
COILS™**

COILS / INDUSTRIAL HEAT EXCHANGERS / NUCLEAR PRODUCTS

Overview

Certifications



ASME U & UM Stamp



American Welding Society

AWS Certified Brazers



NAVSEA Tech Pub 278, Welding



ASNT Inspection Level I, II, III

Segments & Applications

Segments

Aircraft Vessels & Systems
Land Based Vessels & Systems /
Ground Vehicles
Marine Vessels & Systems
Supply Chain & Logistics

Applications

Compartment Coolers
Electronics Cooling
Environmental Control Units
Equipment Storage & Dehumidification

Food Storage
Heat Recovery
Modular & Fixed Refrigeration Systems
Transformer Cooling

Support Capabilities

Controlled Access / NOFORN Document Control
Wind Tunnel Test Lab

Case Studies

Cooling Coil for Marine Vessel

The Customer Needed:

Tight tolerance to ensure fit-up of multiple assemblies



A heat exchanger that fits into a small envelope or enclosure



A target heat transfer capacity



Multiple work procedures approved before production



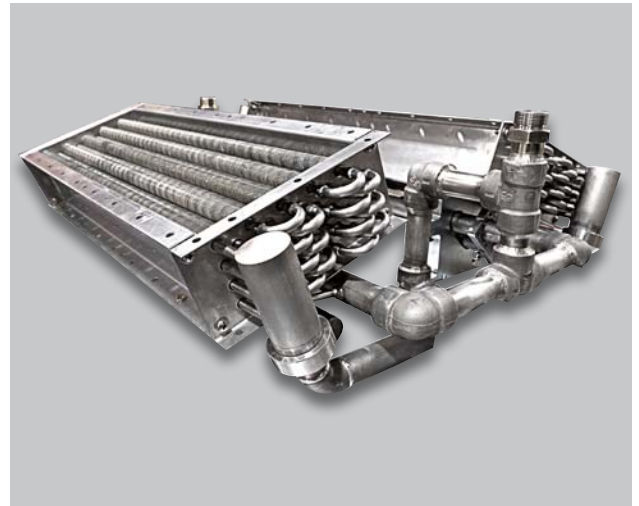
SRC Engineered:

Design was manufactured to the print & all dimensions were confirmed with the CMM

A finned tube design was selected, which allowed more surface area in a smaller space

Prototype coils put through multiple tests, like measuring air friction, capacity & various airflow - to ensure requirements were met

Multiple work procedures & welding procedures were approved through multiple levels before production



Water Coil for Marine Vessel

The Customer Needed:

Qualification test units from a concept design



High dimensional tolerances while minimizing cost



Corrosion protection



Vacuum tight construction



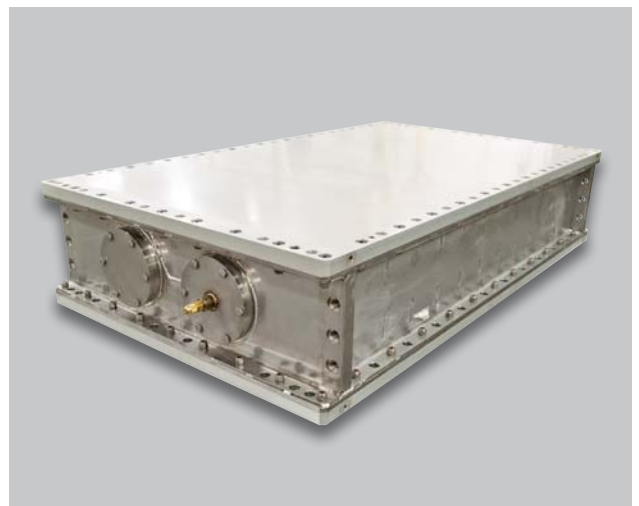
SRC Engineered:

Design improvements for manufacturability

A specialized assembly plan to minimize welding distortion & machining time

Performed pre-assembly passivation per ASTM A967 & post-welding spot passivation. Used hard anodized aluminum

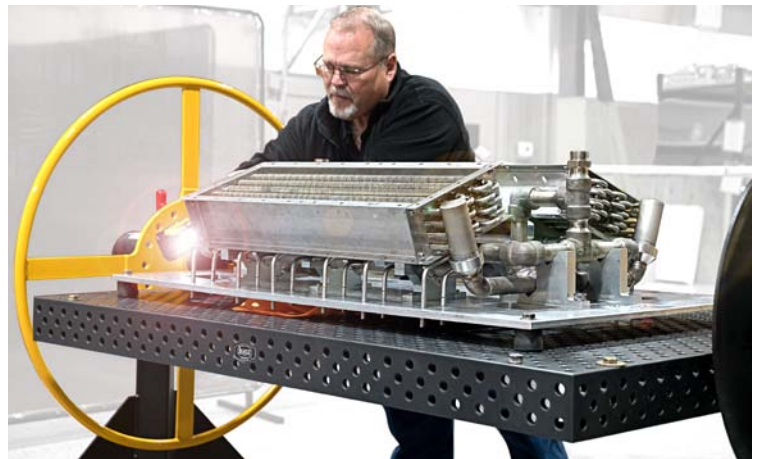
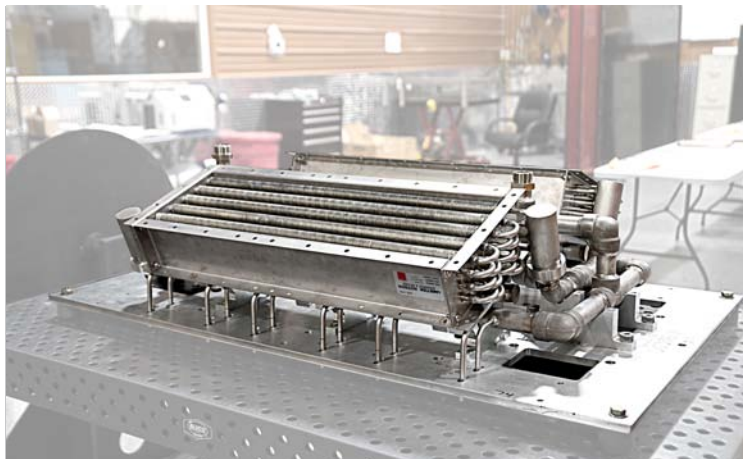
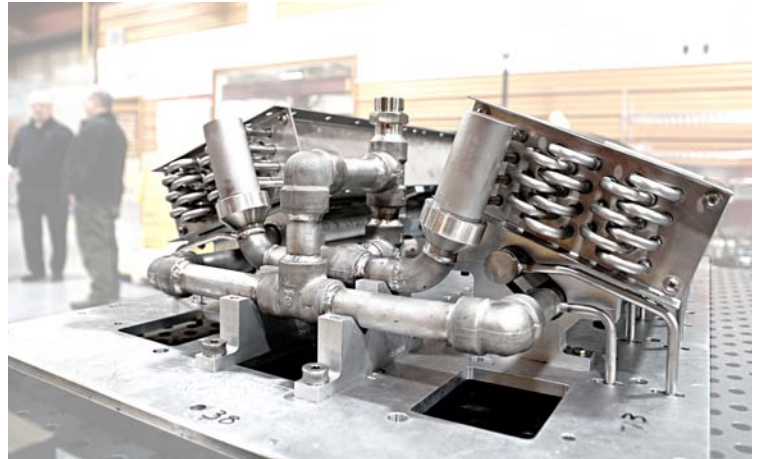
Used O-ring gasketed access covers & performed a hard vacuum leak test



Manufacturing Capabilities

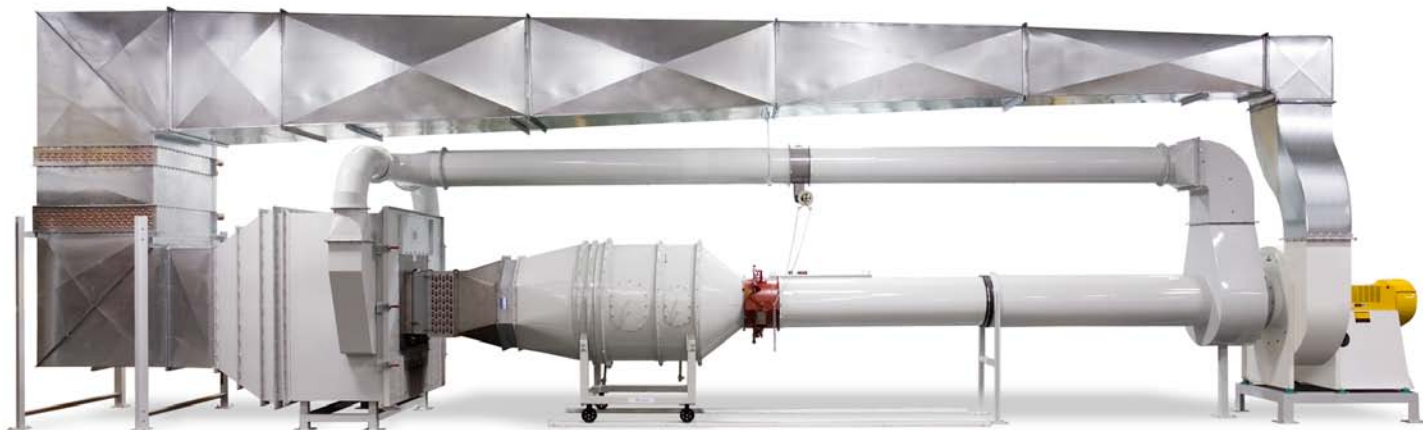
Designated Manufacturing Space with Controlled Access

5,000 square feet of manufacturing space in our Phoenix, AZ facility provides an environmentally controlled room for the manufacturing of NAVSEA certified products.



Test Lab Wind Tunnel

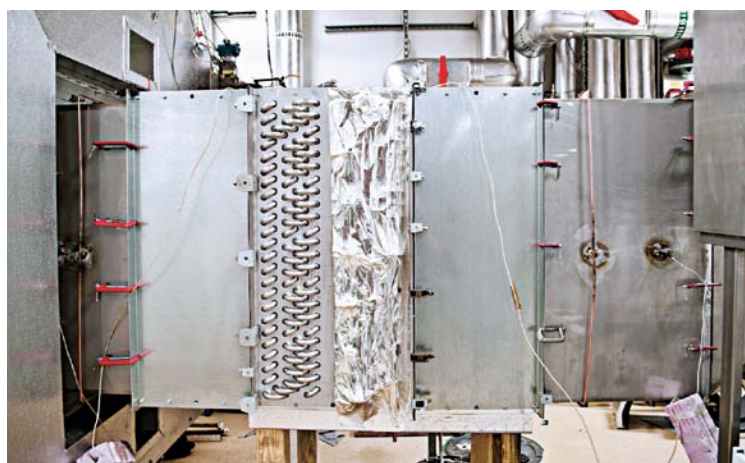
Located in Super Radiator Coils Virginia facility is the state-of-the-art wind tunnel test lab. This facility is capable of handling a wide range of airflows, temperatures and fluids providing engineers with a comprehensive understanding of heat exchanger performance.



Wind Tunnel shown Pre-Insulation



Wind Tunnel with Insulation



Wind Tunnel with Test Coil



Airflow from 100 – 8,500 cubic feet per minute
(0.05 – 4.00 m³/s)



Humidity from 20%-95%



Air temperature from 23°-140°F (-5° C – 60° C) Entering
Water temperatures up to 180°F (82°C)
Entering Glycol temperatures range from 20°F to 200°F
(-6°C – 93°C)



Separate fluid testing loops for: Water, Glycol, Oil, Steam,
Refrigerants, and Other Fluids

Materials

Condensers / Evaporators / Fluid

Tube Diameter	Tube or Fin Material	Aluminum	Copper	Cupro-Nickel 90/10 & 70/30	Carbon Steel	Stainless Steel 304 & 316
5mm	Tube		●			
	Fin	●	●			
5/16"	Tube		●			
	Fin	●	●			
3/8"	Tube		●	●	●	●
	Fin	●	●			●
1/2"	Tube		●	●	●	●
	Fin	●	●	●	●	●
5/8"	Tube	●	●	●	●	●
	Fin	●	●	●	●	●
7/8"	Tube	●	●	●	●	●
	Fin	●	●		●	●
1"	Tube		●	●	●	●
	Fin	●	●		●	●

Steam / Steam Distributing

Tube Diameter	Tube or Fin Material	Aluminum	Copper	Cupro-Nickel 90/10 & 70/30	Carbon Steel	Stainless Steel 304 & 316
5/8"	Tube		●	●	●	●
	Fin	●	●	●	●	●
7/8"	Tube		●	●	●	●
	Fin	●	●	●	●	●
1"	Tube		●	●	●	●
	Fin	●	●	●	●	●

SRC Facilities



Phoenix, AZ

Chaska, MN



Richmond, VA

All SRC facilities are ISO 9001:2015 certified



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Phoenix, AZ 85034
(800) 899-2645

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Richmond, VA 23236
(800) 229-2645

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