

Let Northwest Rail Electric help you with all your passenger railcar systems needs. Starting with power generating, hotel services, power distributing and power management, our extensive experience in passenger car systems can solve the most difficult problems. Allow us to show you how you can accomplish more with less generating and distribution capacity, saving fuel and capital.

We also excel at heating, ventilation and air conditioning systems: HVAC control systems to keep your passengers comfortable from Alaska and Canada in the winter to Arizona and Florida in the summer. In addition to temperature comfort our systems can also maintain humidity to keep your dome windows clear and provide further comfort for your passengers.

Our automation systems allow automatic transfer and control of critical systems when part of the power system shuts down.

## **NORTHWEST RAIL ELECTRIC, INC.**

### **Portland Office:**

Robert C. Jackson  
2630 SE Steele Street  
Portland, Oregon 97202  
(503) 231-4808  
Fax (503) 230-0572

### **Web Site:**

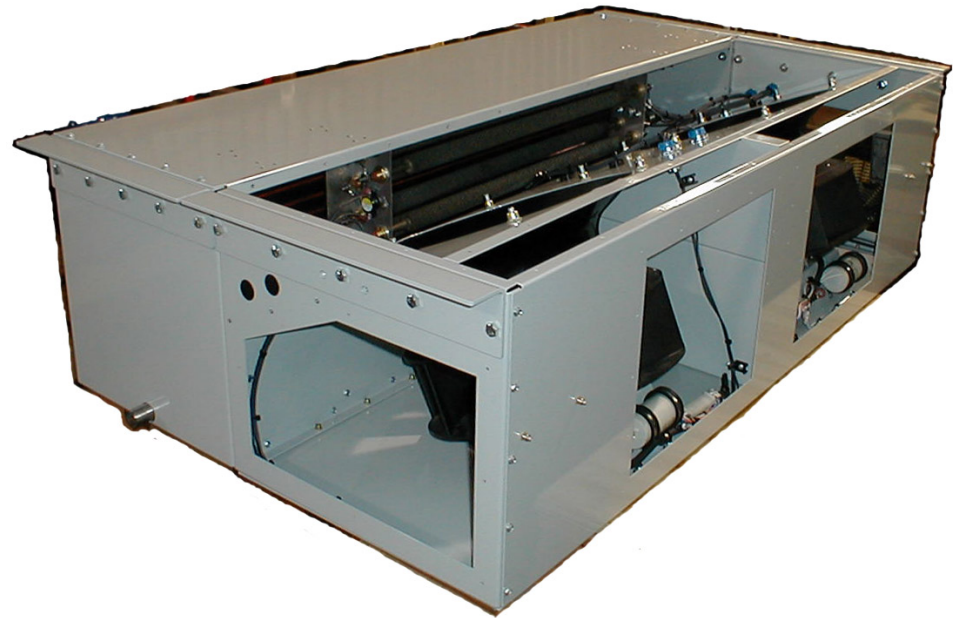
<http://www.nwrail.com>

### **E-Mail:**

[rjackson@nwrail.com](mailto:rjackson@nwrail.com)

# **Northwest Rail Electric Compact Blower, Evaporator and Heater Enclosure For Railroad Passenger Car System Upgrade and Update**

**Up to 18 kW of heat plus 10 tons of air conditioning evaporator capacity and two air circulation blowers in one package.**



**All components selected for the rigors of railroad service**

**Overhead heat**

- 12 kilowatt or 18 kilowatt heat versions available.
- First stage 6 kW
- Second stage 6 or 12 kW

**Safeties:**

- First limit 140 degrees F
  - Second limit 180 degrees F (to drive shunt trip breaker)
- Air flow proving switch
- Stainless steel element supports
- Solid Element Heaters for long service life

**Enclosure:**

- May be separated to be moved through most narrow passenger car hallways and aisles.



- 56" wide overall at support flanges, 52" wide enclosure only, 31" deep (dimension parallel to airflow), 15" tall
- Metal is Electro-Galvanized then Powder Coated for Long Life
- Standard color is grey, others available.
- Can be configured into either an end blower output configuration or a narrow two-direction side output unit seen at right, and is possible to see on the cover photo.

**Sheet steel enclosure designed to allow suspension ceiling rails**

**Low profile for confined overhead spaces found in most railroad passenger cars**

**High volume blowers to improve overall car air flow**

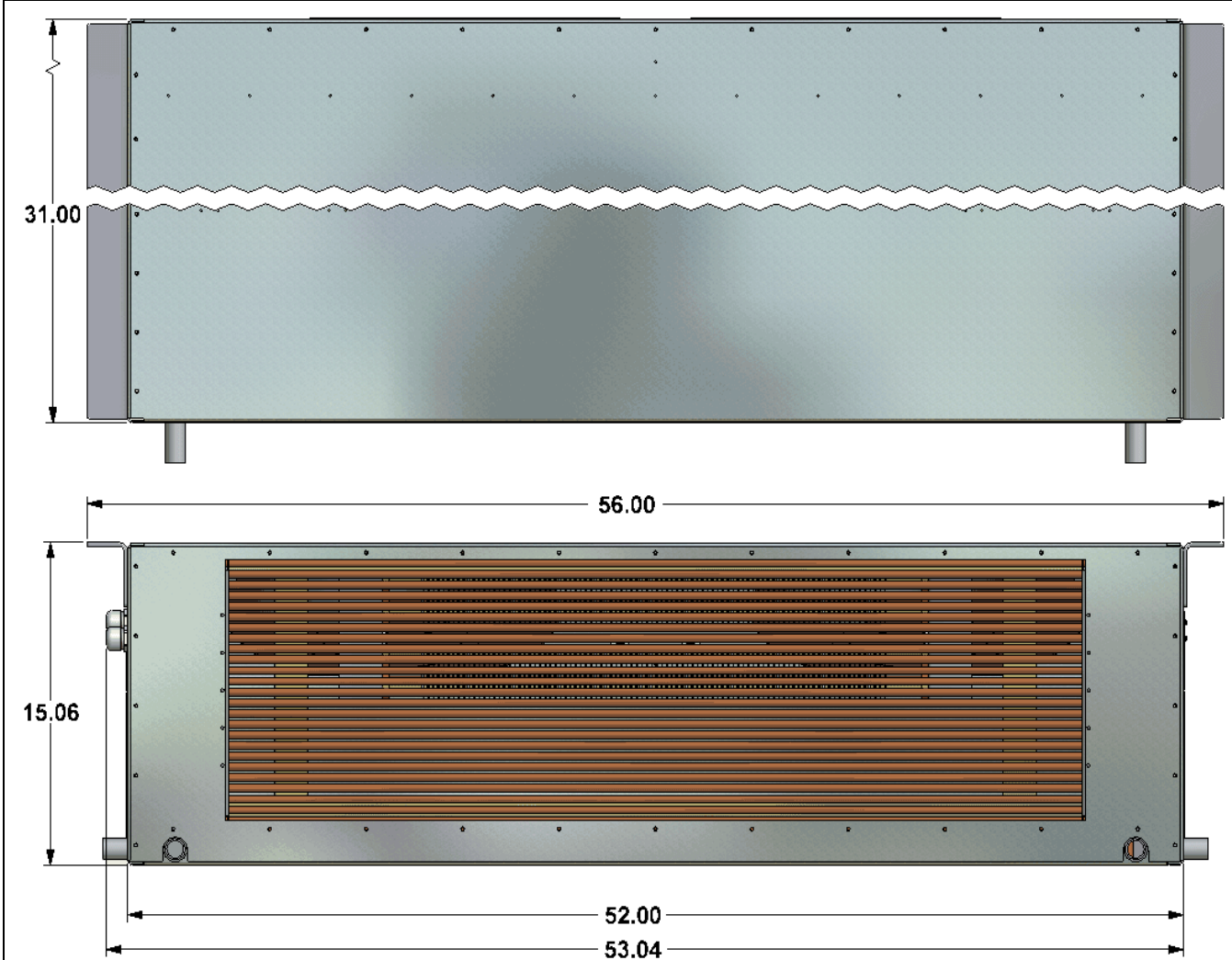
**Cal-rod single piece heating elements for long service life**

**Evaporator Coil**

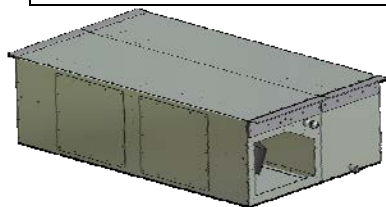
- Copper tubes with .006" Copper fins
- Flat pattern to reduce dirt trapping
- Fin density of 7 fins per inch
- Coil split for modulated operation with two Thermal Expansion Valves controlled by two solenoid valves
  - Optional hot gas bypass port
- Deep condensate pan to limit flooding

**Evaporator Fans (2)**

- Blowers are two separate direct drive units, allowing for much easier maintenance than a single motor dual blower unit that is traditionally used in passenger cars.
- Hatches allow for easy blower replacement.



**A new, compact Air Conditioning Evaporator, Heater, and Blower Unit for the most space-constrained railroad car overhead areas.**



**Unit is matched to operate with NW-125-CN Condenser Unit, also from Northwest Rail Electric (seen at right)**



- Single phase 120, 240 or 3 phase 480 VAC, some are multi-speed.
- 3000 cfm (pair) at 1" water column static
- Welded aluminum fan impeller for long life and durability.
- Good static pressure.