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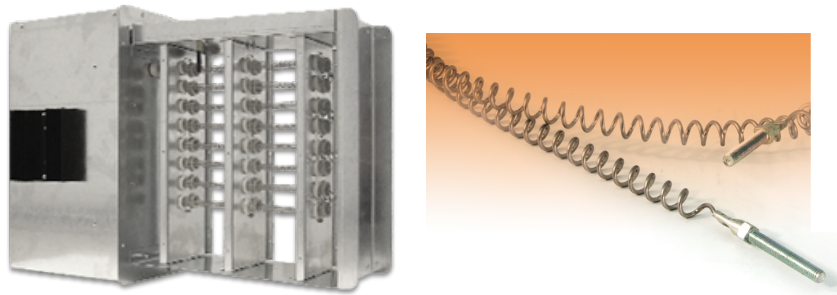
- HVAC Controls
- Electric Actuators
- Actuated Valves
- Humidifiers
- Electric Heaters

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## **Master the Elements**

### **Open Coil Type Heating Elements**

When specifying electric heaters in a project, it is important to have good knowledge of the different coil types. Knowing their characteristics, advantages and usual applications ensures an optimal design and prevents any unwanted situations in the future.



Neptronic offers open coil, tubular and finned tubular heating element types. Open coil elements are one of the most common element types in the industry and can be installed in a wide range of applications.

Open coil advantages are:

- Excellent heat dissipation
- Minimal pressure drop
- Fast response time
- More kilowatts per sq.ft.
- Quick delivery

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There are two main open coil element types:

Standard open coil elements are NiCr 60 (grade C), which are composed of 60% Nickel, 16% Chrome and the balance is Iron. The maximum operating temperature is 1,850°F (1,000°C).

For applications in a humid environment, the NiCr 80 (grade A) elements are better suited. They are composed of 80% Nickel and 20 % Chrome (does not contain iron). This will allow a maximum operating temperature of 2,100° F (1,150°C) and installation where condensation may be present in the air duct.

Open Coil	Grade C	Grade A
Nickel	60%	80%
Chrome	16%	20%
Iron	24%	0%
Operating Temp	1,850°F (1,000°C)	2,100°F (1,150°C)
Installation in humid environments	-	Yes
Most Common Applications		
VAV Systems	x	
Fan Coil Unit	x	
Make-up Air/ Air Handler		x
Process Air Heaters	x	x
Indoor Pool Areas		x
Residential (Condos & Apartments)	x	x