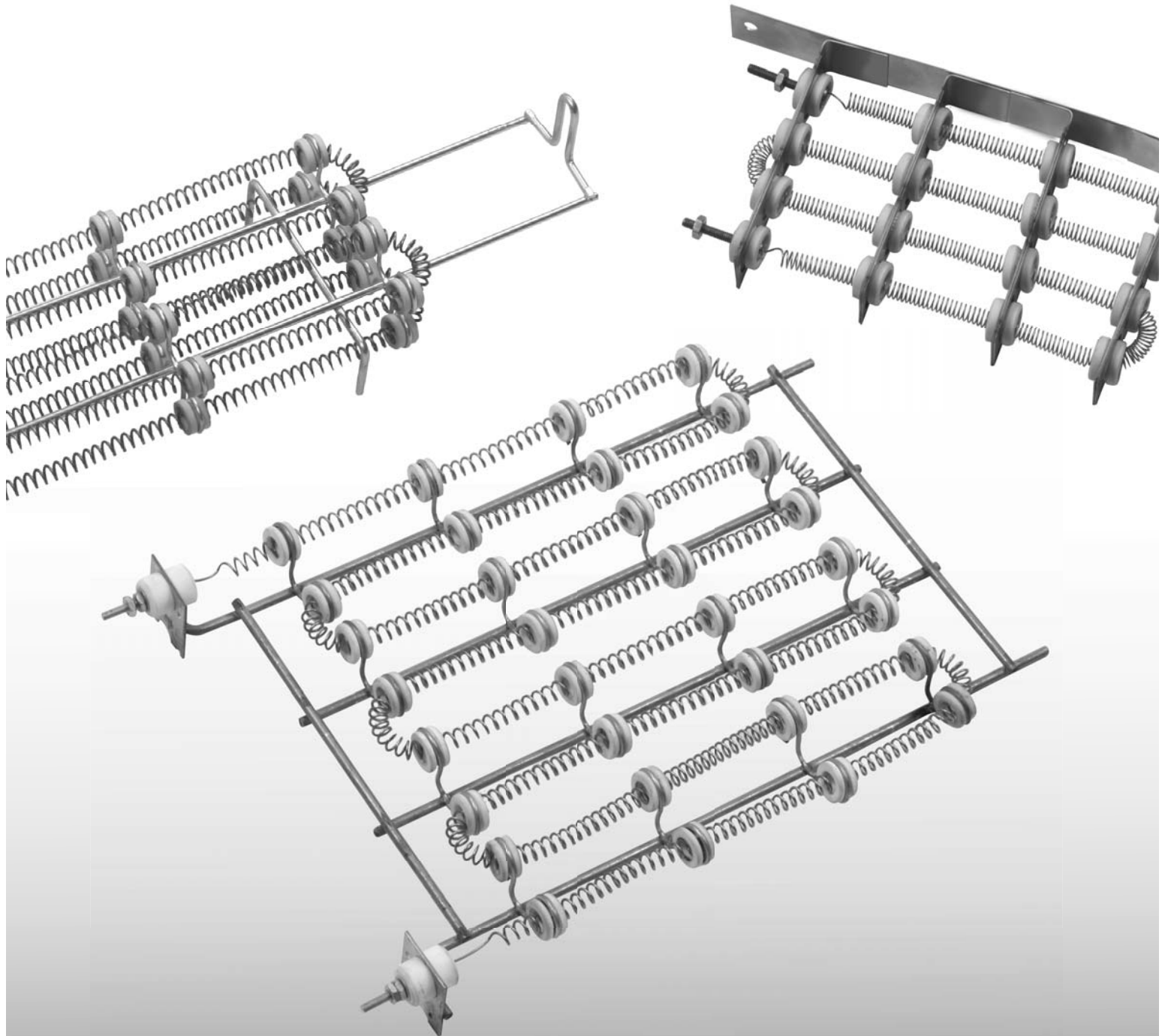


# OPEN COIL ELEMENTS

air heaters



**WATTCO**<sup>TM</sup>



FIG. 1 – Sectional Heater

OVERVIEW

WATTCO™ open coil elements are especially made to fit inside standard 2 or 3" schedule 40 NPS pipes. They are used in tank and pipe heating, and metal tubing. A minimum clearance of 1/8" is required between the ceramic and the inside wall of the tube. Installing an open coil element assembly in a schedule 40 NPS pipe will provide excellent and uniform heat distribution over large surface areas.

WATTCO™ open coil elements are an indirect heating solution to decrease the watt density requirements or the heat fluxes on the surface area of the pipe connected to the heated section and prevent heat sensitive materials from coking or breaking down.

FEATURES

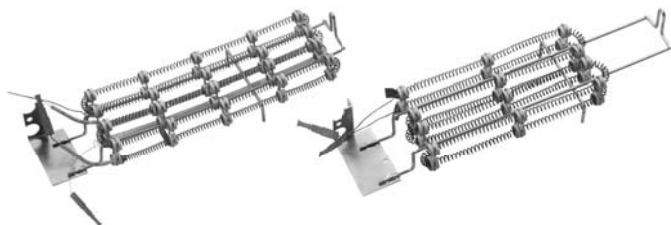
KEY FEATURES

- Outside diameters: 1-7/8" and 2-3/4"
- Lengths: 60-320" (5-26 ft.)
- Single element ratings: 4-20 kW
- Pipe Surface: 3-12 W/in<sup>2</sup>
- Voltages: 240 and 480V, 600V, 3-phase
- Used in horizontal 2 or 3" schedule 40 NPS pipe
- Equipped with high density electrical ceramic insulating supports
- Can be bent in a vertical plane on at least 12" radius
- Heavy gauge bus bars
- Heavy gauge resistance wire
- Special ratings and lengths available upon request

BENEFITS

- Very long size: 40 ft. or more
- Solidly built
- Easy installation
- Very flexible
- Equipped with a continuous support bar that ensures proper rigidity
- Long service life
- Uniform heat distribution

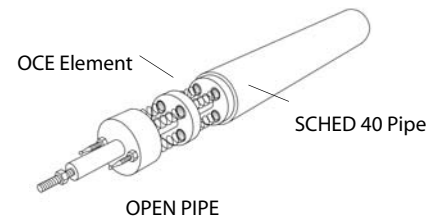
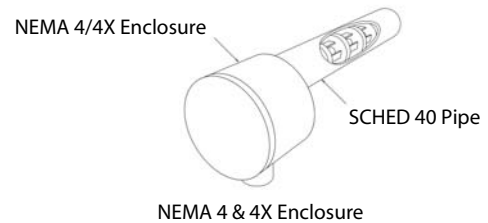
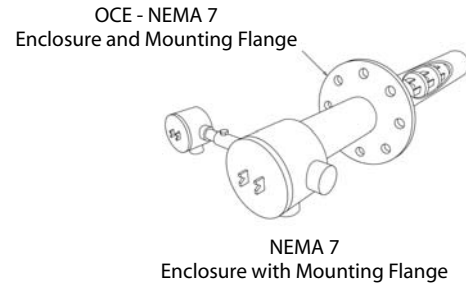
Open coil elements are the most efficient type of electric heating while at the same time, being the most economically feasible for most heating applications. Used predominantly in the duct heating industry, open coil elements have open circuits that heat air directly from the suspended resistive coils. Fast heat up times also improve efficiency while being designed for low maintenance and easily, inexpensive replacement parts.



APPLICATIONS

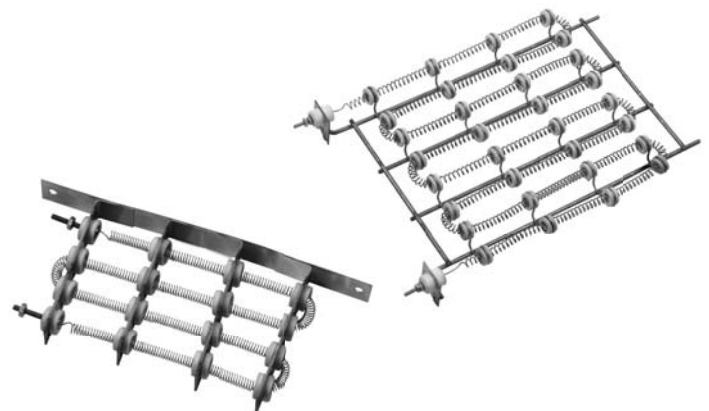
- Tank heating
- Pipe heating
- Metal tubing

STANDARD APPLICATIONS



CAUTION

- Do not mount open coil elements vertically. The resistance wire will sag and this will result in uneven heating and short circuits.
- For vertical installation, check with factory.
- Leave 3/8" ft. of heater length for expansion.
- Install temperature controls, fusing, and backup safety devices.



**OVERVIEW**

WATTCO™ large tank heaters consist of three specific heating systems, open coil element pipe insert heaters, single immersion heaters, and flexible tank heaters that can be used in large storage tanks. These systems can be installed in steel, concrete, or fiberglass above or below ground tanks.

WATTCO™ large tank heaters are the best solution for applications that require little or no manual attention and provide small amounts of heat to maintain temperature levels in the tank during the daytime and high performance during nighttime.

**FEATURES**

**KEY FEATURES**

- Heating systems:
  - o Open coil elements in 2" and 3" schedule 40 NPS pipe
  - o Flexible tank heaters for oil and viscous liquids
  - o Single immersion heaters for viscous liquids and heat sensitive materials
- Watt density: 4-72 kW (13.6 -245 MBH)
- Voltages: 208-600V, 3-phase
- Thermostat for monitoring tank temperatures and energizing heaters

**BENEFITS**

**BENEFITS**

- Easy operation
- Easy maintenance
- Low operating costs

**APPLICATIONS**

**APPLICATIONS**

- Large storage tanks



**WARNING**

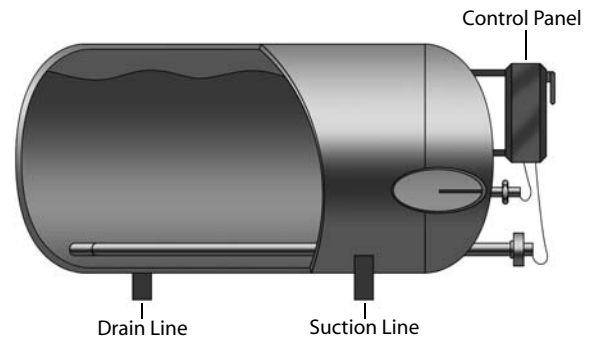
**LARGE TANKS**

In unsafe areas, pipe surfaces can reach high temperature that may cause the auto-ignition of nearby hazardous materials. Please refer to Article 500 of the National Electrical Code for information on the maximum allowable temperatures for your application.

**SINGLE IMMERSION HEATERS**

- Metal sheath or open coil elements installed into 3" schedule 40 NPS steel pipes assembly.
- Pipes welded into an adapter box for easier field welding of the assembly to the top of a steel tank.
- Heaters include built-in controls and are mounted in a weather-proof electrical enclosure.

**FIG. 3 - SINGLE IMMERSION HEATERS**



**SELECTING YOUR WATTCO™ LARGE TANK HEATER**

The following table will help you select the WATTCO™ large tank heater that meets the requirements of your application.

HEATER TYPE	SYSTEM TYPE	APPLICATION	OPERATING TEMP. (°F)	kW	CONSTRUCTION
OCT	Open coil elements	Pipe insert	0 - 750	4 - 20	N/A
OCV	Large flexible tank	Below ground storage tank	50 - 225	6 - 80	NPT and welded
OCV	Large single immersion tank	Viscous fluid	50 - 400	15 - 72	Welded

**NEED ASSISTANCE?**

Please call us at 1-800-4WATTCO (1-800-492-8826) for further assistance.

**WHEN ORDERING, PLEASE SPECIFY:** Quantity, catalogue no., voltage, phase, wattage, and options.