

BCE APPLICATION NOTE

BCE'S SUBMERSIBLE HEATER: TRANSFORMING OZONE SANITIZATION TECHNOLOGY

Disinfecting water in residential and commercial applications has always been at the core of public safety. An efficient way to eliminate pollutants from water bodies is through the creation of ozone by the means of sophisticated equipment. In order to enhance the performance of existing ozone generators, a large multinational approached BCE to provide specially engineered heaters capable of continuous operation while being submerged in a fluid. It was thus imperative for the heaters to be hermetically sealed and easy to install into the existing ozone generating assemblies.

SCOPE

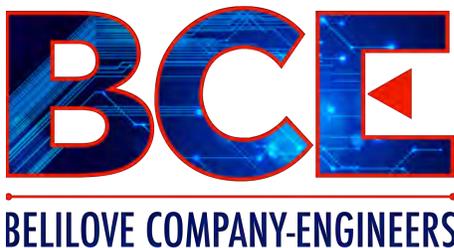
The heaters needed to incorporate the following specifications:

- Operate at 240V
- 10W power consumption
- Easy assembly into threaded connectors
- Heater cartridge not to exceed 7" in length
- Heater diameter not to exceed .5"
- Robust stainless steel construction
- Operate at temperatures exceeding 200°C
- Hermetic seal for increased efficiency
- 10" Lead length
- Leads capable of withstanding 500°C

OUTCOME:

BCE supplied the company with submersible heaters meeting all of the geometric and electrical requirements. The heaters incorporated a 316 SS, ¼" NPT fitting at the tip allowing assembly into existing devices and preventing oxidation. Furthermore, all heaters were hermetically sealed with the BCE proprietary epoxy seal meeting the NASA ASTM E595 Low outgassing specification. The heater body was constructed of stainless steel as well for increased durability. Moreover, the leads were all fiberglass insulated to meet necessary temperature requirements and were exactly 10" long as specified for the application. Trust BCE for the most novel advancements in heater technology.

For the detailed drawing, [click here](#).



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