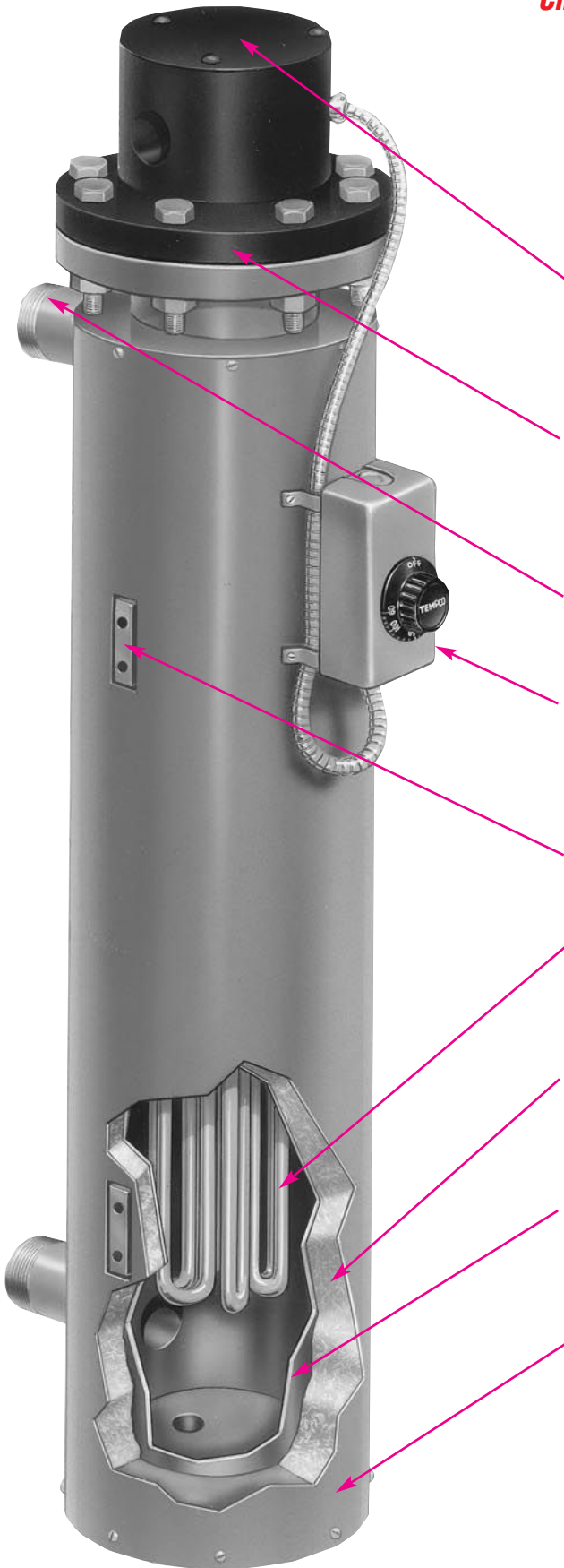


### Circulation Heaters

**Self-contained heating units designed for optimum operating efficiency and performance—  
Providing trouble-free service and application flexibility!**

All of the heat generated by the elements is immediately transferred to the medium being processed with minimal losses.

**Standard and optional features include...**



**A** General purpose (NEMA 1) terminal housing is standard. Moisture proof (NEMA 4) and/or explosion resistant (NEMA 7) housings are optional. A set of installation and maintenance instructions along with a wiring diagram can be found inside the terminal housing of each unit.

**B** Heating source—1-1/4" and 2-1/2" Screw Plug Heaters are used on smaller units. 3" to 14" size heaters use Flanged Immersion Heaters. The flanges are made from forged steel rated for 150 lbs with raised face. Supplied with threaded eyebolts for ease of handling and installation. Optional stainless steel flanges or 300 lb ratings available.

**C** Inlet-outlet connections are NPT pipe threads for 3" to 8" Circulation Heaters (flanges are optional). Standard inlet-outlet connections on 10" and larger units are 150 lb. rated flanges.

**D** Optional feature double-pole non-indicating bulb and capillary type thermostat can be located in the terminal box (standard) or attached to the insulation jacket as pictured. Solid state temperature controllers and indicating thermostats are available. Over-temperature protection can be provided by attaching a thermocouple to one of the elements.

**E** Threaded mounting lugs to support the unit are welded to the steel vessel. Custom supports can be designed to fit your structure.

**F** Wide selection of heating element sheath materials for maximum corrosion resistance to the medium being processed. On smaller circulation units with screw plug heaters, the element diameter is .315" or .475". On larger units with flanged heaters, the element diameter is .475".

**G** The vessel is surrounded with 1" thick insulation rated to 750°F (399°C) to minimize heat loss. Additional insulation or a high temperature ceramic fiber insulation is optional. Vessels can also be supplied uninsulated.

**H** Vessel material is SA53B or SA106B steel. Good for up to 750°F (399°C) operating temperature. For drainage and cleaning purposes, a drain plug is located in the base of the tank. Optional: Stainless steel vessel.

**I** Outer stainless steel sheet metal jacket protects the insulation from the environment and keeps it dry. Optional: Stainless steel outer jacket with a weather-tight seal.



**Note: Branch Circuit Wiring:** Flange heater elements are wired into branch circuits having a maximum current of 48 Amps. The number of circuits is listed next to the heater's voltage and phase in the standard sizes and ratings chart. For different circuit wiring configurations, consult Tempco.