

# ELGE TECHNOLOGIES

INDIRECT PREFABRICATED PACKAGED WATER HEATERS



ELGE

**COMPACT, HIGH EFFICIENCY, INSTANTANEOUS**

*For Commercial, Industrial Heating & Cooling Applications*

## Elge A Series Packaged Steam-Hot Water Generator

Elge High efficiency Heat exchangers for Hot Water Generation: The Swedish design uses is a highly efficient copper spun coil with unique collection chambers in a compact package complete with self contained control valve for controlling primary flow and water temperature; safety relief valve; steam trap, temperature gauges and isolation valves. The unit simply needs to be connected to a heating source and you are ready to go with the most efficient heat exchanger package on the market today. With either self acting, electric/ electronic or pneumatic control valves this unit will supply hot water within 4° F of set point. Over 10,000 of these units have been supplied around the world.

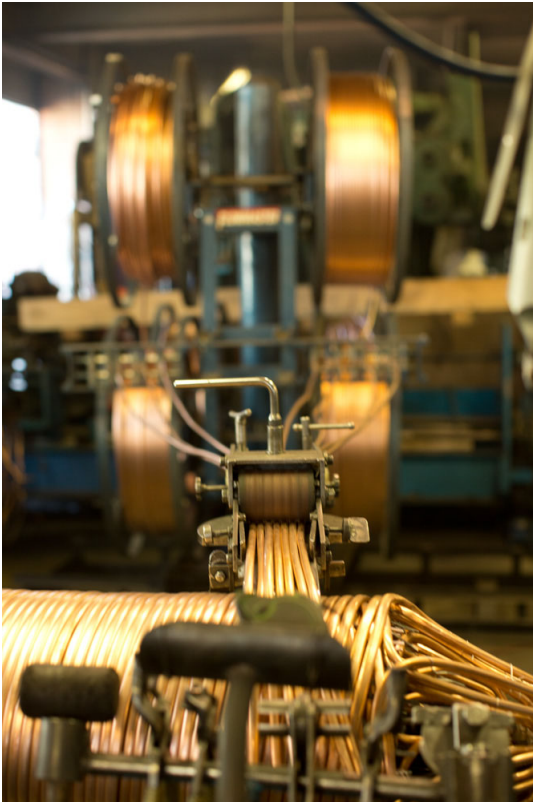


### Bill of Materials:

- Temperature Regulating Valve
- Optional 3 Way mixing Valve
- Pressure and Temperature Gauges
- Y-Strainer
- Float Thermostatic Steam Trap
- Temperature/Pressure Relief Valve
- Safety Solenoid or Direct acting
- 2" Hi density R-15 Fiberglass Insulation
- 20 gauge Stainless jacketing

**ELGE®**

*Shell and Coil Heat Exchanger*



## Coil Design is Reliable, Self-Cleaning

ELGE®'s coil design eliminates stress at the connection points due to expansion and contraction. In addition, this movement causes the coil to be self-cleaning. Scale is automatically removed and can be easily flushed from the system through the flush valve on the bottom of the Steam Water Heater.

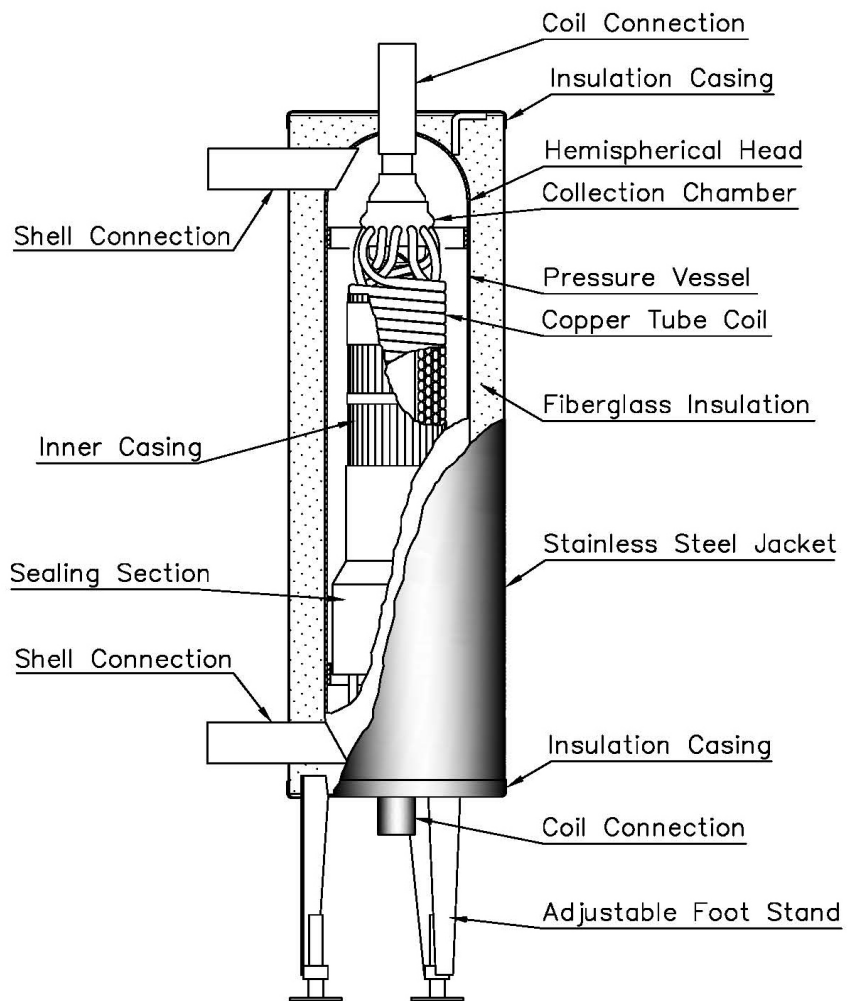
## Efficient and Economical

ELGE®'s Model A/AR Water Heater is efficient in both space and performance. Its vertical design requires less than 4 square feet. ELGE's use of proven components provides a reliable yet economical package.

## Eliminates Storage Tank Hazards

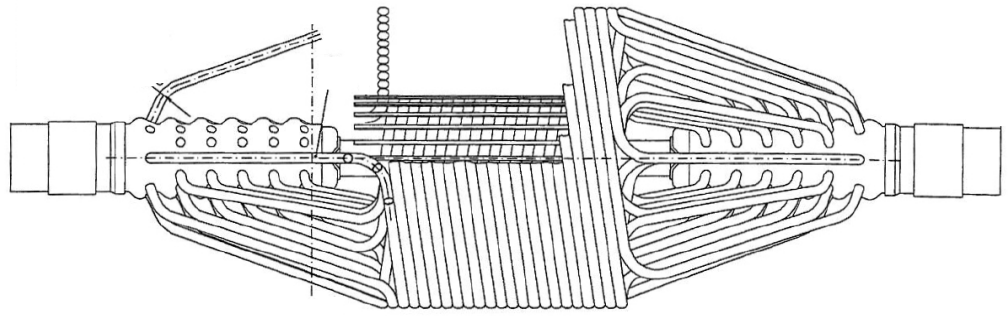
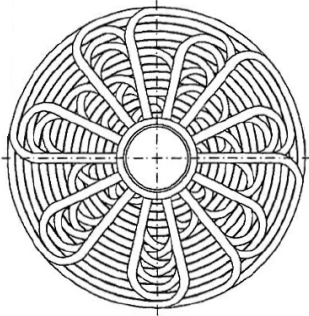
Expensive, space-hog storage tanks can be eliminated or their size minimized by using an instantaneous ELGE® Steam Water Heater.

Storage tanks are a breeding ground for corrosion-causing bacteria and hazardous bacteria such as legionella, etc. Stratified tanks can supply the ideal breeding temperature for any type of water borne bacteria.

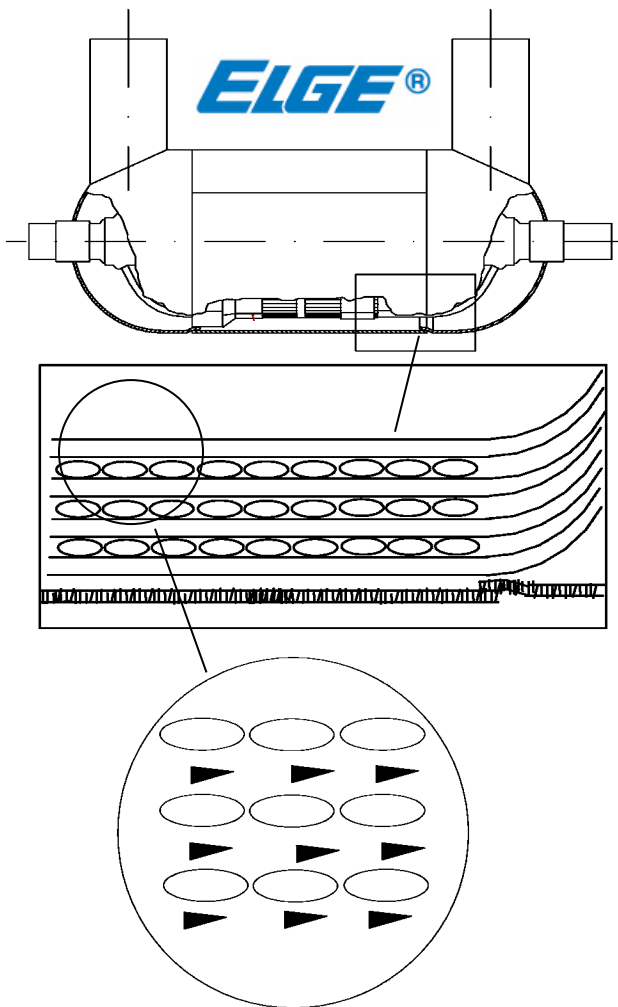


# ELGE®

## Shell and Coil Heat Exchanger



**Even, Controlled Flow:** When the copper is coiled, it is molded to a oval shape to yield a larger heat transfer area and spacers are inserted between the rows. Hot water or steam enters the head and is diverted through the coil bundle in a counter/cross-flow manner. The inner casing ensures even and controlled flow over the exterior of the tubes in the bundle.

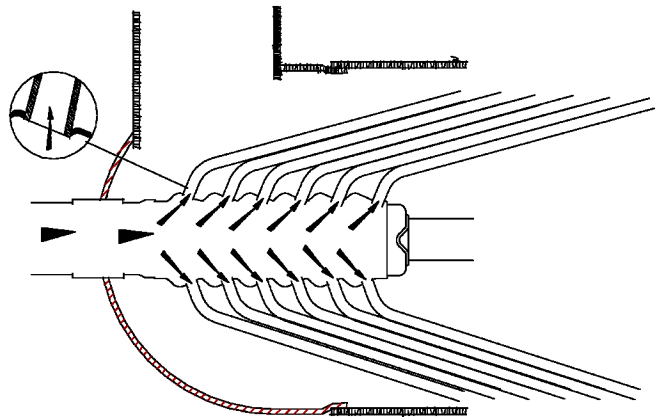


### Efficient and Precise:

The design of the collection chamber, and the angle of the tubes results in a low flow rate and less resistance where the water enters the tube. This means less erosion. However, as the tube changes from round to oval, there is a 50% increase in flow rate at the point of heat exchange.

### Designed to Last

The connection of the tubes to the chamber and of the coil to the head provide a large, strong silver solder area (15% silver used Cu-Cu and 45% used Cu-Steel). The coil design allows expansion and contraction to occur in the coil and minimizes any stress at these connective points.



**Elge-Flow-Through-Design**

## PID and Engineering Information

### Packaged System Components

1. Strainer (by others)
- 2a. Self-Actuated Temperature Control Valve
3. Overheat Protection Actuator (Self Contained valve only)
4. Pneumatic Controller
5. 3-way Solenoid Valve—24 volt
6. Vacuum breaker (if required)
7. Air Vent (if required)
8. Pressure Gauge
9. Temperature Sensor
10. Optional Overheat Protection Blow down
11. Thermometer
12. Temperature and Pressure Relief Valve
13. ELGE Heat Exchanger
14. Steam Trap
15. Y Strainer

### Heat Exchanger Data Pressure and Temperature

Max. Operating Pressure 400 psig  
Max. Operating Temperature 600° F

### Materials of Construction

Pressure Vessel:  
Carbon Steel per ASME standards

Pressure Heads:  
Carbon Steel Hemispherical

Tubes: Oval 3/8" Copper Tubing  
22 gauge wall

