

Product Bulletin Advisement

Bulletin #: 22-050205

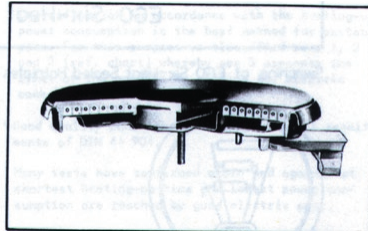
Brand: Garland

Date: May 2, 2005

From: Brian Arnold

Subject: Electric Sealed Elements used on Garland Electric Restaurant Series Ranges and Counter Hotplates.

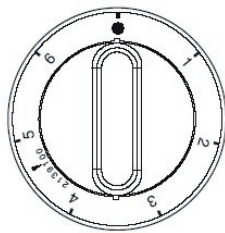
The Garland SS/SU680 series restaurant ranges and ED/EDU-15HSE and ED-15THSE Counter top Hot Plates all use sealed, high performance elements. These sealed elements incorporate (3) three separate heating elements encased in the assembly



Cross-section view of sealed element.

This element provides excellent efficiency, allowing more energy to be directed to the pot/pan bottom. And these sealed elements have an energy saving switch built into the element that protects from over heating. This sensor will detect that an element has been turned on and there is no pot in place. As the temperature builds up, the sensor will reduce power output (wattage) to conserve energy and protect the element for longer life.

Garland offers superior temperature control with these sealed elements by using a six-position switch that offers well defined power control.



Temperature settings

SEALED HOT PLATE WATTAGES AND APPLICATIONS			
Application	Dial Setting	8 2/3" (220mm)	7" (180mm)
Broiling, Frying, Braising	6	2600 W	2000 W
	5	1750 W	1400 W
	4	1300 W	950 W
Simmering	3	450 W	450 W
	2	340 W	305 W
Warming	1	240 W	200 W

Power output guide

Operational Tips

Operation practices are very important for efficient use of these elements:

1. Pot bottoms must be flat. This increases the heat transfer to the pot. Do not use pots with convex bottoms or concave bottoms with more than 1/32" (1mm) concave.
2. Use Pots with the same diameter as the element where possible. This will reduce heat up time.
3. Do not preheat the element. Elements are protected with a high limit, which will automatically reduce the element to a lower power. It will increase heat up time if this occurs.
4. Use a lid on pots when boiling water.

Some Points Of Interest On Test Results Comparing Sealed Elements VS Tubular Elements

Purpose: These are not in depth lab results but simple tests preformed at Garland using Garland equipment to give the idea how a tubular element compares to a similar size sealed element. Also to see how pot quality can effect your results.

Elements Tested: Diameter 8 5/8" (220 mm) Sealed element 2600 watts compared to Large Diameter 8 1/2" (216 mm) Tubular element 2100 watts.

Water Temperature 59 degrees Fahrenheit (15 degrees Celsius)

Pot Type (No Lid)	Element Type	Time Required (to bring 20 gallons water to boil)
(Control Set At Highest Setting)		
11" dia. Induction Pot	Sealed	32 minutes
	Tubular	38 minutes
10" dia. Aluminum Pot (good shape)	Sealed	33 minutes
	Tubular	43 minutes
13" dia. Aluminum Pot (rough bottom)	Sealed	61 minutes 57 seconds (97 degree C / 206.6 degree F)
	Tubular	52 minutes

General Conclusions: The largest tubular elements on the market which are 8 1/2" dia. 2100 watt are not as fast as the 8 5/8" dia. 2600 watt sealed elements.

Utensil quality will have a definite effect on your results and in some cases with the sealed elements it will be produce even poorer results then a tubular style element.

A pot cover used during these tests would have improved the test results.