

Greenplate PID Inbench Electric BBQ Unit Power and Temperature Results



Introduction

The objective of the test is to determine the power usage and monitor how the BBQ maintains the temperature at the cooking plate throughout the 28-minute cooking cycle.

The below results show the temperature and power graphs for a Greenplate Inbench Electric BBQ Unit set at 240°C and 300°C at the cooking plate. The test shows the BBQs results with 1kg of thin sausages on the plate cooked to an internal temperature of 75°C.

Test Parameters

The tests were performed on different days with specific weather conditions recorded for the time and date the test was undertaken.

Test Location: Greenplate Head Office Outdoor Testing Area

Test Equipment: 1 – EDM I MK7C Atlas, 2 – Fluke 54IIB, 3 – Digitech QM1601

Food Load: 1 x 12 Pack Beef Sausages 1Kg per “Food Load Test”

Test 3 - 240°C - With Food Load Summary	
Date and Time:	06/09/2021 2:09:01 PM Start
Ambient Temperature:	22°C
Wind Speed/Direction:	11 Km/h SW
BBQ Set Temperature:	240°C
Time to reach set temperature:	07:00
Duration of Test:	28 minutes 00 seconds
Total Power Consumption:	598 watts
Food Load:	12 x Thin Beef Sausages (1kg)

Summary

The food load was placed onto the cooking plate as soon as the plate reached its set temperature of 240°C. The food load did not drop the cooking plate temperature below 235°C and for no longer than 2 minutes.

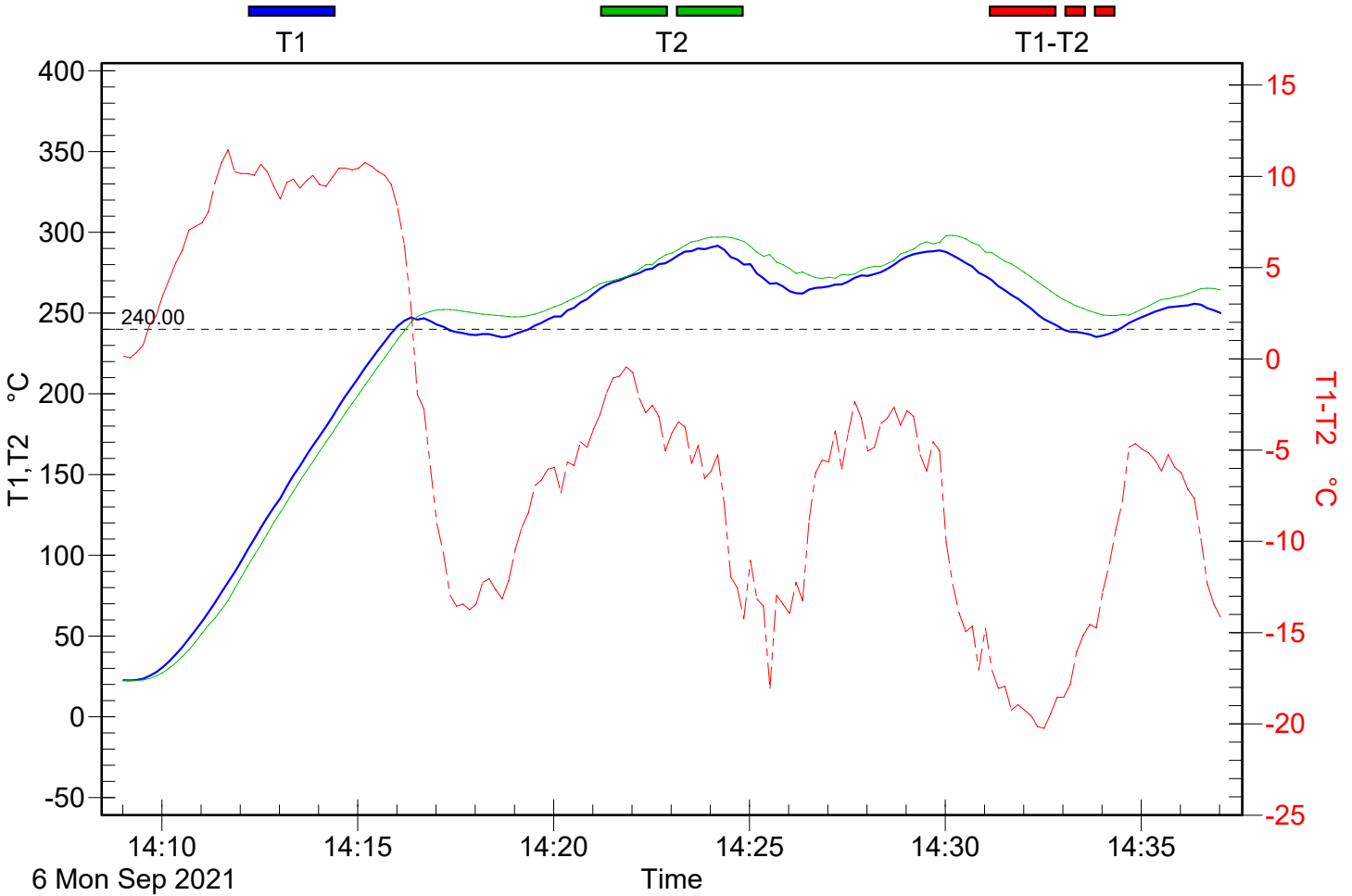
Please refer to Cooking Test Results 240°C Full Report (attached)

Start Time	6/09/2021 2:09:01 PM				
Stop Time	6/09/2021 2:37:01 PM				
Elapsed Time	0:28:00				
Interval	0:00:10				
Total readings	169				
Thermocouple Type	K				
Scaling	(none)				
	Max Time Stamp	Max	Average	Min	Min Time Stamp
T1	6/09/2021 2:24:11 PM	291.7 °C	225.2 °C	22.5 °C	6/09/2021 2:09:11 P
T2	6/09/2021 2:30:11 PM	298.1 °C	229.8 °C	22.5 °C	6/09/2021 2:09:01 P
T1-T2	6/09/2021 2:11:41 PM	11.4 °C	-4.7 °C	-20.3 °C	6/09/2021 2:32:31 P

Test Purpose:

This test was conducted to determine the amount of power used to heat up the BBQ from 22.5°C to 240°C. 1kg of sausages was added to the plate when the set temperature was reached. This test was also conducted to determine the influence the food load had on the cooking time and temperature stability.

Graph Name: Cooking Test Results 240°C



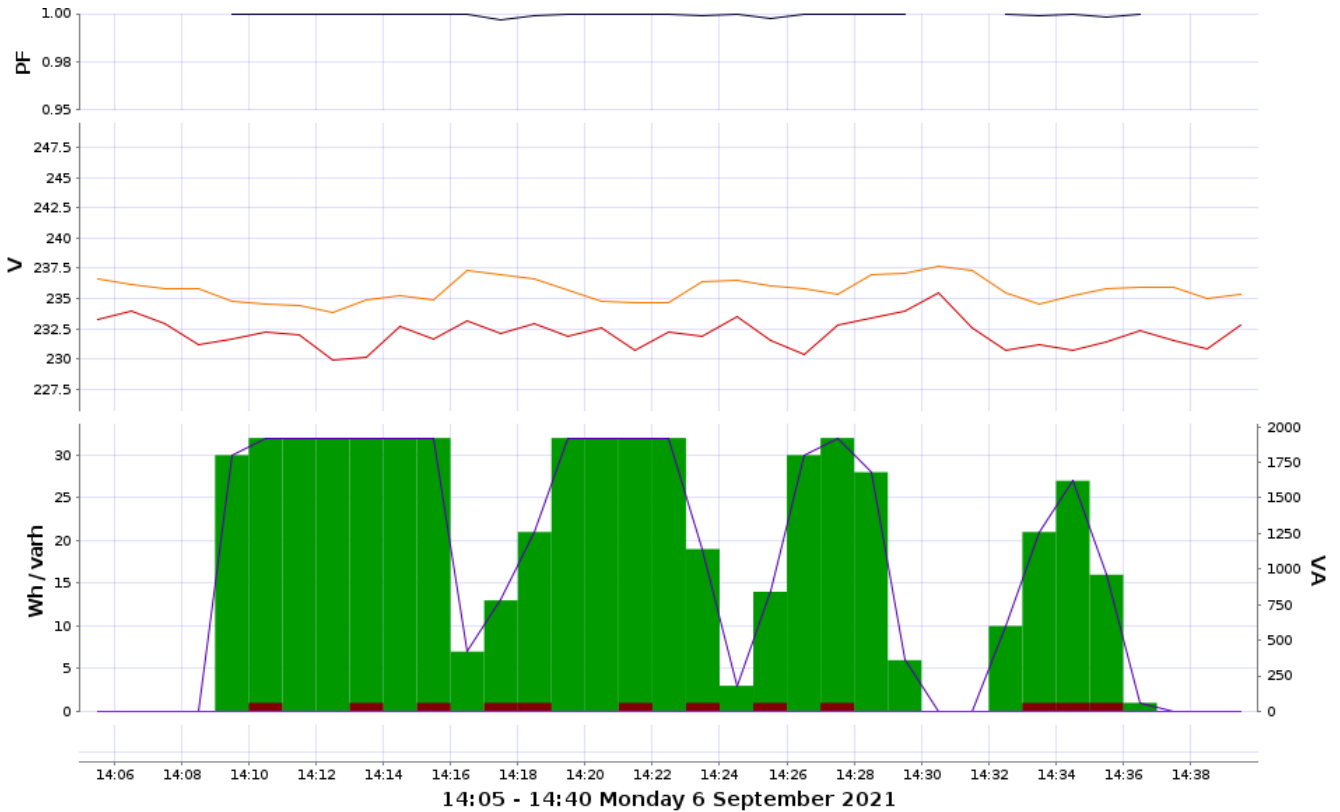
Thermocouple 1 (T1) was positioned to the BBQ cooking surface directly above the Thermocouple channel. Thermocouple 2 (T2) was located in the Thermocouple channel beneath the cooking plate. The BBQ Thermocouple which regulates the Temperature is also located in this same channel. We also had a Thermocouple in one of the sausages that was applied to the plate when the unit reached 300°C at 2:16:01. The sausages were cooked until an internal temperature of 75°C then removed. Ambient local temperature was 22°C, Ambient plate temperature was 22.5°C. Set temperature on the BBQ Temperature Module was 240°C.

	T1	T2	T1-T2	Time Stamp
1	22.6 °C	22.5 °C	0.1 °C	6/09/2021 2:09:01 PM
2	22.5 °C	22.5 °C	0.0 °C	6/09/2021 2:09:11 PM
3	22.8 °C	22.5 °C	0.3 °C	6/09/2021 2:09:21 PM
4	23.5 °C	22.8 °C	0.7 °C	6/09/2021 2:09:31 PM
5	25.4 °C	23.6 °C	1.8 °C	6/09/2021 2:09:41 PM
6	27.6 °C	25.3 °C	2.3 °C	6/09/2021 2:09:51 PM
7	30.7 °C	27.3 °C	3.4 °C	6/09/2021 2:10:01 PM
8	34.4 °C	30.1 °C	4.3 °C	6/09/2021 2:10:11 PM
9	38.6 °C	33.4 °C	5.2 °C	6/09/2021 2:10:21 PM











Time Interval - EDMI BNE Portable 214048390

Custom Date Range in 1 Minute intervals
 Mon 06 Sep 2021 14:05 - Mon 06 Sep 2021 14:40 (GMT+10:00)

Greenplete BBQ's / EDMI BNE Portable 214048390 - BBQ3



Usage Summary

Key	Series	Intervals	Minimum	Maximum	Average	Total
	Wh Consumption E1	35 mins	0 Wh Mon 06 Sep 2021 14:06	32 Wh Mon 06 Sep 2021 14:11	17.09 Wh	598 Wh
	varh Consumption Q1	35 mins	0 varh Mon 06 Sep 2021 14:06	1 varh Mon 06 Sep 2021 14:11	0.34 varh	12 varh
	VA Consumption	35 mins	0 VA Mon 06 Sep 2021 14:06	1,920.94 VA Mon 06 Sep 2021 14:11	1,025.62 VA	
	PF Consumption	26 mins	1.00 PF Mon 06 Sep 2021 14:18	1.00 PF Mon 06 Sep 2021 14:10	1.00 PF	
	Wh Generation B1	35 mins	0 Wh Mon 06 Sep 2021 14:06	0 Wh Mon 06 Sep 2021 14:06	0 Wh	0 Wh
	varh Generation K1	35 mins	0 varh Mon 06 Sep 2021 14:06	0 varh Mon 06 Sep 2021 14:06	0 varh	0 varh
	VA Generation	35 mins	0 VA Mon 06 Sep 2021 14:06	0 VA Mon 06 Sep 2021 14:06	0 VA	
	PF Generation	0				
	V Max	35 mins	233.82 V Mon 06 Sep 2021 14:13	237.62 V Mon 06 Sep 2021 14:31	235.71 V	
	V Min	35 mins	229.91 V Mon 06 Sep 2021 14:13	235.42 V Mon 06 Sep 2021 14:31	232.11 V	