

QUALITYFRY

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POWER CONSUMPTION'S MEASUREMENT IN DIFFERENT OPERATING CONDITIONS OF A TRADITIONAL FRYER AND A QUALITYFRY FRYER EXECUTIVE SUMMARY

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Madrid, October 17th, 2017.

Performed by:

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Energy efficient area

EXECUTIVE SUMMARY

QUALITYFRY request SGS TECNOS to conduct a power consumption measurements of two industrial fryers:

- QUALITYFRY (without fumes and odors): FAST CHEF ELITE.
- Traditional model (provided by the client): AUSTRAL (MOD: EF101-V)



QUALITIFRY model and Traditional Fryer model

The scope of the work is to measure the power consumptions obtained in the different tests carried out with the two fryers object of the study and then to establish a comparison between them.

The assessment was conducted on October 4th and 5th, 2017 at “Taberna del Chato” restaurant, located in C/ Andres Mellado 88, Madrid.

During the works, three tests were performed to measure the power consumption in different conditions.

Test	Test 1	Test 2	Test 3
Fryer	Traditional Fryer (without extractor hood)	Qualityfry (Sin Campana)	Traditional Fryer (with extractor hood)
Date (dd/mm/aaa)	03/10/2017	04/10/2017	04/10/2017
Test start time (hh:mm)	15:21	10:04	13:37
Test finish time (hh:mm)	17:15	11:34	15:37
Test duration (hh:mm) (*)	1:54	1:30	2:00

(*) Time needed to get an optimal frying point.

The frying details were defined by the customer:

- **Product:** French fries
- **Oil:** high oleic sunflower
- **Frying time:** Time needed to get an optimal frying point.



The results for each test were the following:

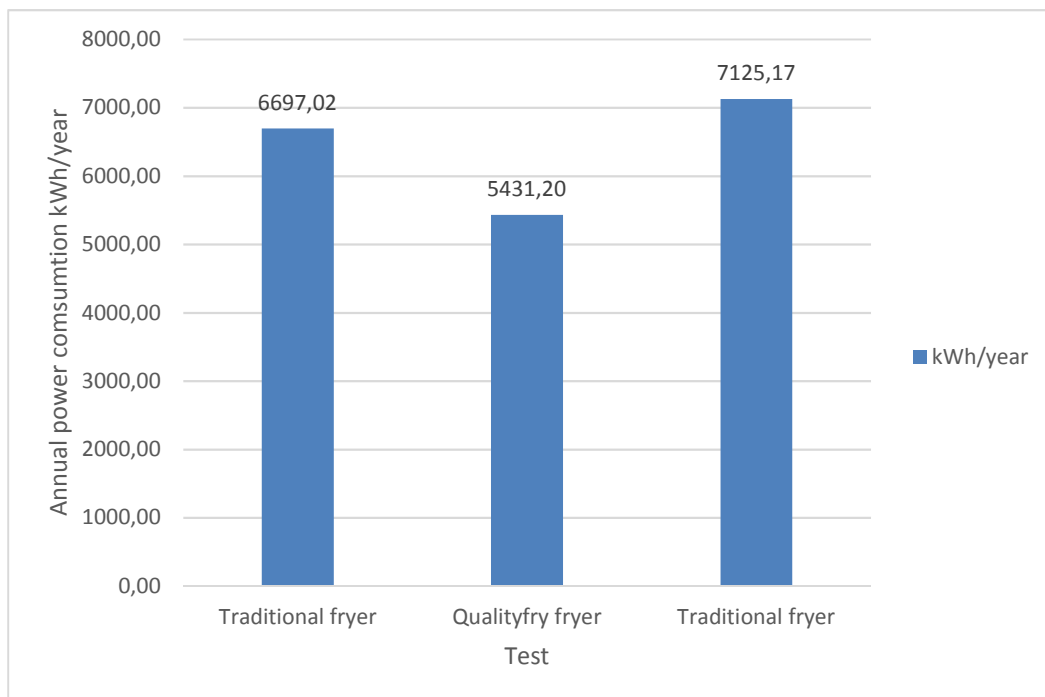
Test		Frying duration	Power consumption
		hours	kWh
Traditional fryer	Without extract hood	1,9	6,12
QUALITYFRY fryer	Without extract hood	1,5	4,96
Traditional fryer	With extract hood	2	6,51

These measures have been extrapolated to obtain annual consumption (if the conditions of use are the same as the day of the test and for the same product).

To perform the calculations, it has been assumed that fryers are used 3 times a day/365 days/year. The results are:

Test		Power consumption (kWh)	Fryer user/daily	Hours use/daily	Annual Power Consumption
		1 hour			kWh/year
Traditional fryer	Without extract hood	3,22	3	5,7	6697,02
QUALITYFRY fryer	Without extract hood	3,31	3	4,5	5431,20
Traditional fryer	With extract hood	3,25	3	6	7125,17

Consequently, in a year operation, with the same working conditions and methodology followed during the measurement day, for the same type of product and if the energy consumption is constant over time, **the FAST ELITE CHEF + fryer consumes 1265,82 kWh less than the CONVENTIONAL FRYER WITHOUT HOOD and 1963,97 kWh less than the CONVENTIONAL FRYER WITH HOOD.**



Madrid October 17th 2017