

Report of the measurements of the steam qualità generated by means of the E-Cats made by Leonardo Corporation.

- 1- The probes which have been utilized and the connected elaborators measure the quantity of evaporated water in grams/cubic meter, with a margin of error of +/- 12 grams
- 2- We chosen as a parameter the temperature of 101.1 Celsius, at which at atmospheric pressure at sea level (100 kPa) in 1 cubic meter must be contained 585 grams of vaporized water, if the steam is saturated, as well known
- 3- The pressure in the system has been regulated balancing the induced aspiration of the chimney after the sink with the pressure drop along the pipe, until we reached the atmospheric pressure in the chimney and the pipe of the system. The pressure has been measured with a deprimometer with an error margin of +/- 0,5 Pa, which is an error irrelevant to the boiling point of the water
- 4- The thermometers have a margin of error of +/- 0,05 Celsius
- 5- I made my measurements only when the temperature was exactly 100.1 Celsius
- 6- Since the amount of evaporated water , for the saturated steam, is 585 grams/cubic meter, as a consequence if the measured amount of evaporated water is less than this figure, the difference must be or water not evaporated, or condensed water. Conservatively, we calculated the missing steam totally as if it was non evaporated water
- 7- Conservatively we always considered the error margin of all the instruments as if it was always in favour of the amount of energy produced, so that we always have reduced the amount of energy produced of the possible error margin. In any case, such amounts of energy due to error margins resulted to be irrelevant.
- 8- The amount of vaporized water measured has always been between 570 and 580 grams/cubic meter.
- 9- We considered the minimum limit of 570 grams, conservatively, plus we considered the error margin, so that there is a lack of $12 + 15 = 27$ grams of vaporized water.
- 10- This amount of 27 grams is the 4.73% IN MASS of not vaporized water.
- 11- Therefore the amount of energy produced by means of the E-Cat has to be reduced of 4.73% , if all the error margins are calculated to increase the lack of vaporized water; without calculating the error margins, the reduction of energy skoulb be around the 2%
- 12- An empirical confirmation, not rigorous though, is the fact that I extracted many times the probe from the chimney of the reactor, and it was “ictu oculi” dry: being the chimney a small vertical cylinder, due to the gravity in short time it would be filled by water, if significant amount of water shouldn't evaporate, with two consequences: i) the temperature could not be 101.1 Celsius and ii) the probe would have been wet.
- 13- I have not been requested to make videos
- 14- To measure the pressure has been used a deprimometer Testo, but I also used a water column vulgaris, and the displacement has been less of 1 mm

15- To measure the temperatures have been used Testo Data loggers, already defined in the reports, property of Leonardo Corp

Bologna, July 25th, 2011

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