



Security

A metal mesh developed by the Spanish company Technokontrol avoids deflagrations in gas and fuel tanks

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Technokontrol develops a metallic mesh composed of an aluminum alloy and 3D structure that, introduced in any tank of gas or fuel, prevents any type of deflagration. The process of absorption of energy is possible if the mesh occupies the whole tank, however, against the principle of Archimedes, only moves a 1% of the volume of the liquid or gas.

“The result is a 3,000% increase in safety,” explains Technokontrol’s institutional director Raúl Ivars, “we have been certified in Spain by INTA, by the Guardia Civil since 2016 and recently, last May 9th, by the National Protection Center of Critical Infrastructure (CNPIC)”, in addition to agencies in countries where they are marketing this solution. Their identity, being a strategic solution, prefer to keep it confidential.

The clients it targets are the petrochemical industry, aeronautics, governments and large companies but also the consumer: “For example, with this technology we eliminate the fear that some people have to change their car to gas, a much cheaper fuel and Clean,” explains Ivars. The cost in this case would be about 400 euros, “less than some extras that offer us when we buy our vehicles.” Likewise, gas or fuel tankers could have less traffic restrictions than the current ones.

Technokontrol is a young company, created in 2011, and has more than 200 registered patents. In fact, the years 2013, 2014 and 2016 were the number 1 company in patent registration in Spain.

Given the uniqueness of its technology, Technokontrol works to make it normative, ie, once the authorities know that the safety standard can multiply at this level, make it mandatory.

Other important functionalities of the TK mesh:

- Prevents corrosion of tanks or tanks.
- It does not pollute the fuel.
- It reduces the evaporation of gas or fuel, something very important in the oil and gas companies.
- Prevents the growth of algae and fungi in the bottoms, multiplying the useful life of the deposits.
- It stabilizes the liquids before the movement, for example, before a blow of wave in a ship of transport.
- It dissipates the noise and the heat.

In this heat feature, plaster walls no more than two centimeters wide, filled with TK mesh, dissipate heat from direct fire without burning. According to Raúl Ivars, a recent test at the University of Castilla-La Mancha certified that this protected wall supports 900°C without letting the direct fire pass until after eight and a half hours. This quality could be useful, says the company, for building 'panic rooms' safe in buildings while emergency services arrive in case of fire.