ABSTRACT

Since a lot of years ago to nowadays, the construction technology has not been evolved to the demand. Due to this demand and the new rules, the construction systems have to transform into a new philosophy. For this and other reasons, we have to incorporate new industrialized forms of construction. This group of companies is recent, and sometimes those companies are in an experimental phase. Even though in the near future we will see which alternatives are more appropriated.

The industrialization has evolved to diverse kinds of construction, the steel framing or concrete categories are different examples of industrialization. The concrete technology has done a lot of advances to built faster adding tild up methods. All of these initiatives are designed to separate the brick of the construction world.

This work has been carried on in the following manner:

1- Contact to the supplier of the system
2- Visit at least one site where we could see how was built
3- Visit the manufacturer plant if they have one.
4- Comparison of the different alternatives

Due to this investigation I have obtained a detailed description of the industrialization companies in Spain. This world is divided on two different kinds of construction systems, dry a wet systems.

On one hand we can concentrate our attention on light steel building. This kind of building is based on reduce the structure weigh and built faster than other methods.

On the other hand, we can find the construction with concrete. We can make the elements on a plant or in the building site; it depends on the method we choose. To build in a prefabrication plant obliges us to transport the pieces, but do it on the building site means not to reduce the workers in the building site. A part from typical construction there is the modular systems. These are the most innovate systems because they change the building into an assembly of pieces.

Finally I have done a comparison between all these industrial building methods. In order to offer a global vision this comparison includes economics, environmental and other social values. We can make this comparison using specific programs like MIVES. With the correct tools, we can choose the best option in each case. I would like to remark that industrialized solution can be different depending on which kind of construction we have. Due to this reason, the elaboration of the project is the most important phase, as opposite to the past, when all the solutions were similar.