

Consideratons for Glass Balusters Design In Architecture

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Abstract:

The architecture is rich in many architectural elements. "Stair or ladder" is one of the important elements because of its important role in linking the lower and upper floors, as well as "window and balcony" which in turn connects the outside and the inside.

The ladders and the architectural openings are divided into different shapes and types, each of which imposes considerations on the designer that must be taken into account during the process of designing the supplements of these different types, such as handrails and balusters design used for each type. In addition to functional, structural and aesthetic requirements.

The research sought to unify the architectural elements that have the same shape and function for the importance of linking the various elements in the same building such as balustrades of stairs, windows and balconies in terms of design, material and method of installation, in addition to achieving the economic aspect instead of repeating research and study. So, the search aims to balance beauty, uniqueness, economy, simplicity and ease of installation through the design of the quantitative production of glass balusters.

Because the balusters of the architectural supplements combine the function and beauty, it is produced by many different materials such as wood, concrete, iron and others, which must have several considerations that Help to optimize balusters usage. The use of flat glass has been shown in stair balusters for several years. In this research, researchers called for the creation of glass units to be used in architecture as a baluster. Considering successive economic crises that hinder cost innovation processes that are Subjected to the unit production system. The research has sought to profile these units in production to produce in different ways that are assembled and installed to be used as balustrades for stairs and various architectural openings, it could be manufactured by the methods of quantitative production of glass according to the design of these units. These methods save a lot of effort, time and money. The design process, measurements, tests and production are done once and can be used in more than one location and building. The architect can choose between them in accordance with the conditions of the building design and provide large quantities of the product to be used when needed. Spare parts are also provided for pieces that may be broken after installation and are also easily installed.

key words:

Design - Balusters – architectural openings - Stairs - Glass - Windows – Balconies