

PORCELAIN TILE BENDING SYSTEM (DOUBLE UP SYSTEM)

J. A. Gascón

Estudio Cerámico S.L.
Spain

ABSTRACT

Estudio Cerámico was set up in 1984 with a view to creating and developing exclusive special pieces or trims for ceramic floor and wall tile manufacturers worldwide.

Estudio Cerámico belongs to a holding group of companies present in the main markets in the world, with two production centres and a sales office:

Spain (San Juan de Moro, production centre).

Mexico (Federal District, production centre).

Italy (Sassuolo, sales office).

This global presence provides in-depth knowledge of the market, which is used to satisfy the needs of our clients and to help them in their value proposals.

During the time that Estudio Cerámico has been in the market, we have observed the problem that tile fixers always have when it comes to cladding curved surfaces. The ceramic tile bending system seeks to address this problem, which has been posed to us on numerous occasions by a great many tile fixers.

1. DESCRIPTION OF THE SERVICE/PRODUCT

An industrial process is involved whereby ceramic stoneware tiles or porcelain tiles are bent by heat, allowing different geometric shapes to be obtained in order to satisfy market needs.

2. OBJECTIVE

By using this system it is sought to provide a solution for the tiling of curved surfaces with stoneware tile and porcelain tile, while maintaining the colour consistency of original ceramic tile in a great number of products. This system is protected by a patent.

From a commercial viewpoint, the system focuses on providing different market solutions, from either an aesthetic or a technical viewpoint, always keeping the technical characteristics of the original ceramic tiles.

Technical solutions:

- Stair steps.
- Hygienic skirtings (without joints).
- External and internal corners (façades and interiors).

Aesthetic and decorative solutions: Combinations are used of the original tile and the piece made by our production process to obtain various volumes with a high aesthetic and decorative value, and without losing the technical characteristics of the original piece.

3. PRODUCTION SYSTEM

The production system is divided into three stages:

- **Stage 1:** We start with a standard ceramic stoneware or porcelain tile base of any company available in the market.

A series of incisions are then made on the backs these bases, where we want the tiles to bend.

- **Stage 2:** Once the incisions have been made in the tiles in the foregoing stage, they are placed in the kiln on a refractory support, which acts as a mould. The pieces are put through a firing cycle of about 5 hours, reaching temperatures of about 1180 °C, thus enabling the pieces to fit the shape of the refractory support.

- **Stage 3:** In this last stage, a final cut is made to leave the piece with the desired size.

4. INNOVATIVE CONTRIBUTION

As noted above, this industrial process allows curved surfaces to be clad with trims made of the stoneware and porcelain tiles that ceramic tile producers usually manufacture at their facilities, thus enabling tile manufacturers to contribute great value with their products to their clients in the market.