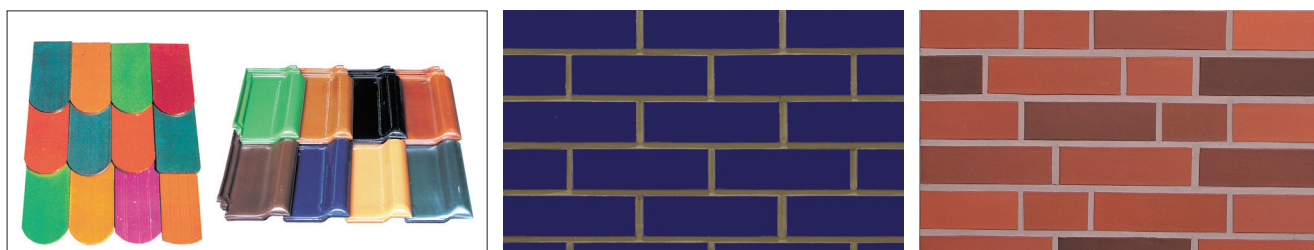


## SMAC Presents the MULTIGLAZE System

A wide range of clay roofing tile and facing bricks can be obtained by applying different glazing/engobing and decorating techniques. Decorating technologies comprising uniform coating with rotary atomisation, spraying as well as application of powders and granulates developed by SMAC are implemented worldwide since many years in the production of heavy clay ceramics.



**Fig. 1a-c** Examples of glazed roofing tiles (l.) and facing bricks

Last year, in this decoration sector the trend was directed to the growing use of brilliant glazes due to the development of the North Africa and Middle East markets. Attention towards maximum possible automation of production plants also increased. Therefore, completely automated plants are more and more operated avoiding material waste and assuring saving in manpower.

The mostly used method for uniform coating of roofing tiles surfaces is rotary atomisation with disc booths. Rotary diffusion of the glaze/engobe occurs via high speed rotation of disc packs of different diameter and design, equipped with waved or grooved discs. The rotary units are direct supplied with glaze/engobe. In order to get a better control of the glaze stream, the disc rotation can be selected on the command board of the plant clockwise or anticlockwise. The disc units are supplied with glaze/engobe via perforated pipes connected to a rotary pump.

This method is spreading quickly and is acknowledged as the best technology for uniform glaze/engobe coating, both for standard products and ever increasing for special shaped products.

SMAC developed for this technology a compact machine, the MULTIGLAZE sys-

tem, where the discs are placed inside the plant and the glazing/engobing operation is performed outside the plant. Due to the ever-increasing number of special pieces/accessories, in order to facilitate uniform application of brilliant glaze SMAC developed the MULTIGLAZE system which is the company's last innovation for uniform coating of roofing tiles and accessories by applying rotary atomisation.

The system uses hollow rotor motors of last generation, completely designed by SMAC, which guarantee high quality and high duration standards. Besides the possibilities of disc rotation, in order to prevent non-glazed areas, the booths have numerous possible adjustments including the inclination of the disc together with the entire metal internal structure (superior and lateral towers).

The MULTIGLAZE system is a glazing station composed of a support frame, an independent conveyor, an automatic glaze/engobe feeding system with automatic recycle, and an automatic washing device with separate waste water recovery. In order to obtain best coating, glaze/engobe atomisation is done through 3 upper rotary units and up to maximum 6 lateral rotary units. All rotary units are adjustable in height, inclination and spray angle. The large number of disc

packs and of possible settings allow a better glaze application since each disc pack will apply smaller quantities but with more intensive atomisation capability. Furthermore, perfect coating of the entire production range of special pieces and accessories is guaranteed due to the application units placement.

The system is completely automatised and needs minimal maintenance and control during operation. The independent transport system assures avoidance of any glaze/engobe loss and facilitates system installation directly into the production line. Coloured glaze/engobe feeding is done by a pneumatic pump which includes a pulsations compensation system allowing constant glaze flow and consequently its optimal application on the pieces.

The new automatic cleaning device allows in a few minutes very good washing of all

*Officine SMAC S.p.A.*  
41042 Fiorano Modenese  
Italy

E-mail: [info@smac.it](mailto:info@smac.it)  
[www.smac.it](http://www.smac.it)



**Fig. 2** MULTIGLAZE 7

(Figs.: SMAC)

internal parts of the machine with automatic glaze recovery and deviation of dirty water. Thus rapid change of products and colours with minimal worker intervention can be carried out.

With this technology, the error possibility is very low and moreover the system is not subjected to stops for adjustments or maintenance. With constant glaze/engobe quality parameters and constant glazing speed the applied glaze/engobe is kept uniform. The whole system is controlled by an electric command board with PLC and inverter which allows programming and production parameters saving. The memorized recipes can be also integrated into the Multiline software for the management of the entire glazing/engobing step of the production line.