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Page: 42

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Maxi brick: the choice for affordable housing projects

he popular maxi brick has now become the brick of choice for use in affordable housing projects across South Africa, 20 years after it was first developed to address the challenges of the country's housing backlog.

Pan Mixers South Africa (PMSA), the leading supplier of concrete brick, block and paving machinery in Africa, has been instrumental in the maxi brick's success by supplying its range of brick-making equipment to manufacturers nationwide.

The maxi brick is a lightweight building unit which is offered with various external finishes. In the late 1980s, brick manufacturer Jaap Prinsloo played a pivotal role in the success of the maxi brick after purchasing 17 PMSA VB4a brick and block-making machines. Prinsloo estimates that with these he has produced a range of products, including over 55 million maxi bricks annually ever since.



A PMSA VB4a brick and block machine.



A look at Jaap Prinsloo's extensive block yard.

"The PMSA VB4a plants enable users to produce more than 65 000 maxi bricks per nine-hour shift with each machine. The consistent reliability of PMSA's equipment has ensured an output that equates to approximately 18 500 low-cost houses per year, or a total of 370 000 low-cost houses over the 20-year period," he explains. "The maxi brick has reached new heights in the affordable housing market, due to its cost-effective design, quick construction time and ease-of-use."

PMSA marketing and sales manager, Quintin Booysen, says the VB4 and VB4X range of block making machines come standard with adjustable speed control of the hydraulic functions, resulting in faster and smoother machine operation, with increased productivity and a reduction in wear and tear. "What's more, an electronic PLC control allows for change of pre-vibration, feed-box movement, number of feed strokes and number of pre-vibrations, while the machine is still in operation. This allows instant adaptation to changing moisture contents and aggregate consistency, without stopping the machine," he explains.

The solid maxi brick comes in various sizes. "The unique design of the brick allows a bricklayer to build a single-skin 140-mm wall in one process, as opposed to a double-skin external wall made from stock bricks," adds Prinsloo. "Local building standards require a 90-mm-thick internal wall, and the maxi brick can be turned on its edge to build internal walls too."

A typical low-cost house requires about 2 800 to 3 000 maxi bricks for the internal and external walls, compared to 8 000 to 9 000 standard stock bricks for a similar-sized low-cost house. PMSA director Walter Ebeling adds: "By simply turning the brick on its edge for internal walls, maximum space utilisation inside the structure is achieved.

"This innovative method of construction enables a small team of two bricklayers and two assistants to erect a 32-m² to 40-m² structure in a single day. "This unique process assists contractors in reducing building costs, while allowing more housing to be delivered within a tighter budget."

Booysen concludes: "I believe that the maxi brick has enormous potential in other African countries where there is a shortage of housing and limited funds to construct them."

More information from Quintin Booysen, Tel: 011 578 8756 / www.pmsa.com