



The semi-automatic SPS712 roof tile extruder, designed and built by PMSA in collaboration with ABECE of Sweden, can manufacture up to 5 000 concrete tiles per nine-hour shift

An innovative roof tile extruder for remote project sites

Pan Mixers South Africa (PMSA), in collaboration with ABECE of Sweden, have designed and manufactured a roof tile extruder specifically for the African market.

Designated the SPS712, this semi-automatic extruder can manufacture up to 5 000 concrete tiles in a nine-hour shift, depending on the specific plant configuration. This equates to about ten tiles a minute. The main benefits are that it is easy to install, operate and maintain – all of which are important considerations on remote project sites in Africa.

The extruder features a heavy-duty design that incorporates high-quality materials and components in its manufacture. It has a 1.5kW motor power roller and a 5.5kW hydraulic power pack for the pusher movement. A standalone de-palleter is also available, as well as ridge and trim tile manufacturing equipment.

ABECE area manager Fredrik Toftemo explains that concrete is fed from a conveyor into the concrete hopper above the slipper and roller unit. Aluminium pallets are placed manually on the support rails that guide the pallets through the extruder. A hydraulic cylinder pushes the pallets through the release oil spray system and the making head in order to shape the concrete tile.

Thereafter the automatic knife unit cuts and shapes the tile. This knife unit is kept clean by a water-spray system. The manufacturing process only requires three to five labourers, depending on the level of automation and the skills level of the staff. A dual start/stop function that requires the operator to use both hands to either start or stop the machine enhances operator safety significantly. This is an example of the attention to detail that PMSA and ABECE incorporated into the design the SPS712, which is built for the African market where skill levels are low and proactive maintenance is not a priority.

In order to ensure ease of maintenance, as well as keeping the machine clean, the extrusion head flips upwards. All working parts are easily repairable and do not require special tooling to be removed. The SPS712 utilises an aluminium palette to shape the tiles.

“Combined with the fact that concrete roof tiles are such an eco-friendly product, the SPS712 extruder is the ideal machine for African conditions,” says Quintin Booyesen, PMSA’s sales and marketing manager. ■

PMSA, based in Jet Park, Gauteng, is a leading manufacturer of a range of concrete block, brick and paving machinery, turbine and counter-current pan mixers and batching plants for the concrete, refractory and ceramic industries.