## Flexibility is top priority in concrete block production

The best known machine produced by RINO, Bammental, Germany, is its Impacta rotating table. One of the advantages of the RINO tamping system is the variability of the slab thicknesses from an optional 1.6/2.4cm to 22cm. A new introduction, in addition to product-specific height adjustment from the operating panel, is the fully automatic fine height and inclination adjustment. The control circuit comprises an optical video camera measurement system for

measuring precise heights and assessing any errors in parallelism. Innovations such as a sixth station for the manufacture of products of particularly fine surface finishes, a new approach to reduce set-up times comprising also the use of robots, transfer facilities for stacking products either "face up" or "face down", the use of synthetic rubber/steel matrices, or other, have already been implemented.



A RINO innovation: an automatic, optoelectronic control system for particularly high-quality concrete blocks.

In addition to advantages such as, for instance, the high end product stability, the significantly lower cement consumption, dry cleaning and lower maintenance and handling costs, the Impacta also ensures efficient block production with possibilities, among other things, for washing, shot-blasting, grinding and splitting.

The Solomatic is a sliding-bed machine type especially designed for smaller output of special items, low investment and moulding costs and reduced setting-up times and subsequent costs. Blocks can be edge stacked, flat on plates or, via a 180° swivel stacker including matrix return, on transport pallets. Just as with the Impacta, instead of a tamping system there is the possibility of a combination of vibration and variable hydraulic topload. Typical products are, for example, wall copings, split blocks, concrete rings, rope feedings, door and window sills, manhole covers, particular screed elements and panels, i.e. products that cannot be made technically or economically on a pallet machine or a rotating table. Also new is the universal extension, providing a combination of Solomatic S (tamping) and Solomatic R (vibration and variable topload) for the Solomatic U (universal).

An economical and pricewise interesting block machine for medium-sized producers is the new Ecopac block production plant, which is capable of manufacturing all current products, of multiple varying types and of a wide variety of aggregates, at a reasonable output capacity. The investment ratio is around 1:2.5/3.0 since there is no need for a transfer car, foundation work, rack system, pallet conveying, double positioning, expensive mould management, etc. The machine is available in a 2R version with two vibrators or as a 4R version.

In terms of handling, RINO has been providing conveyor belts, packaging and turnover systems, lifting/lowering systems and handling systems for transfer grabs and palletizing machines for years. A new introduction is the production range from Bauer, supplementing Rino's system technology with an additional flat stack system, flexible automatic pack builders, package turnover and strapping systems including band tightening and styrofoam infeed and a transfer car. In future, robots will be incorporated into Rino's block production systems both for special, non-linear tasks and very complicated packaging.

By incorporating the Bauer machinery, RINO can now also offer complete surface finishing equipment lines (for aggregte washing, shotblasting, matrix design, camfer grinding, grinding/polishing, and splitting).