

Rimac Maschinen & Anlagen GmbH, 69256 Mauer, Germany

Upgraded sliding-bed machine facilitates production of high-quality architectural facades

Architectural Art Stone is a medium-sized company long established in Kansas City, USA which produces particularly high-quality blocks for con-

struction engineering. Since the beginning of 2006, the company has been producing its blocks on a Rimac production plant.

One particular speciality of Architectural Art Stone is the production of very natural looking, decorative concrete copies of sandstone which are produced in various different moulds made from wood, steel and plastic. Everything from the small corner block to metre-long semicircular arches and columns is made from earth-moist concrete and demoulded without delay so that the moulds can be used again immediately.

Aside from the individual requirements of the architects regarding the shape of the concrete products, there are also technical aspects which favour the production of concrete blocks by machine. Along with compaction, the most important aspects are high-quality, decorative surfaces and sharply defined edges.



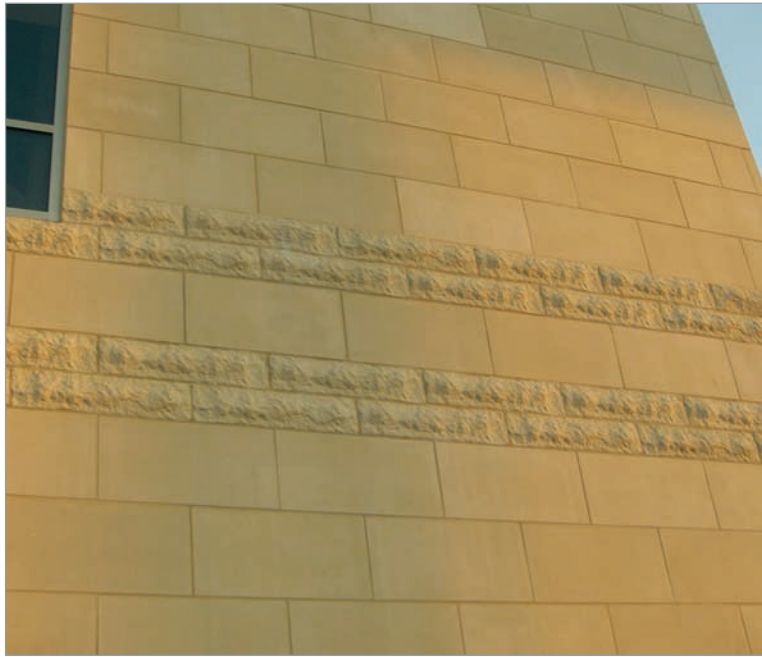
Packaged products in the storage area of the company



Overview of the RTM 4H-4 at Architectural Art Stone

In order to satisfy these requirements, it was decided at Architectural Art Stone to acquire a Rimac RTM 4H-4 turntable slab making machine which compacts the concrete products using a hammer-tamping system with 8-9 strokes per hammer per second. This machine was based on a Rimac RSM sliding bed machine which was upgraded to an RTM turntable. By taking this approach, it was possible to keep the costs very low. The slab formats for which this is intended are at the moment, to start with, 80 x 40 cm, 80 x 20 cm and 60 x 40 cm. The machine is controlled by its own program based on Siemens S7.

By using special surface texture matrices, both smooth structured surfaces, rock face, split face, pitch face and camfer can be produced without having to use other processes such as splitting, embossing or milling etc. ▶



Application example for high-quality facades made from imitation sandstone from Architectural Art Stone

Consequently, the following process are carried out on four stations:

- (1) Cleaning of matrices and, where necessary, filling with face concrete
- (2) Placement of core concrete
- (3) Compaction of concrete by means of a hammer-tamping system with four hammers
- (4) On-edge placement on a pallet line

Other moulds and matrices can be used on the machine to manufacture products such as wall coping, walling rails and handrails for decorative construction engineering. For finishing, the production of exposed-aggregate concrete for fine washing is also provided for.

Dispatch of the products is simplified by stacking them on edge.

Further information:



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RTM TURNTABLE MACHINE

RIMAC Tamping Unit for excellent compaction; ideal for aggregate washing, shotblasting and grinding/ polishing etc.

Advantages: continuously variable thickness from 2cm optional to 22cm; 20-50% cement savings; cycle time from 9 sec. on; at choice face down or face up manufacture; Alternatively: use of vibration technology for special products.

New rotating table concept for reducing set-up times

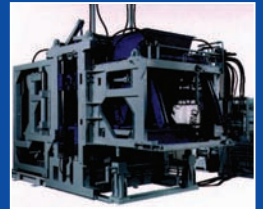


RSM SLIDING BED MACHINE

New: modular construction, specifier product manufacturing plant.

RBM BLOCK MACHINE

Rugged construction & simple operation; quick start and stop by frequency inverter control; gentle product handling due to proportional valve technology; low investment using clever handling solutions; extension for surface finishing systems – optional.



HANDLING, PACKAGING AND STORAGE SYSTEM

Complete handling circuits for block and slab manufacture as well as for other products including production, storage, surface finishing and packaging.

New: RRO rotor cuber and legged pallet handling; no rack system needed; optimum ambient temperature for curing.

New: Fully flexible RPA automatic wrapping machine

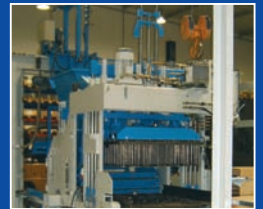


RMB MOBILE BLOCK MACHINE

Reinforced version with the option of Styrofoam feeding.

FIXED HANDLING RFH

New: If necessary, the RMB or another machine can be made a stationary type by integration into a fixed handling system.



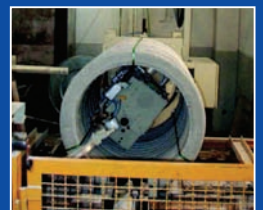
POST-PROCESSING

Complete post-processing for aggregate washing, shotblasting, grinding/polishing lines.



SPECIFIER MACHINERY

E.g. for ring strapping and profile sections packaging machines, manufacture of manholes and adjustment rings, rails and sleepers, special cutting machines.



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