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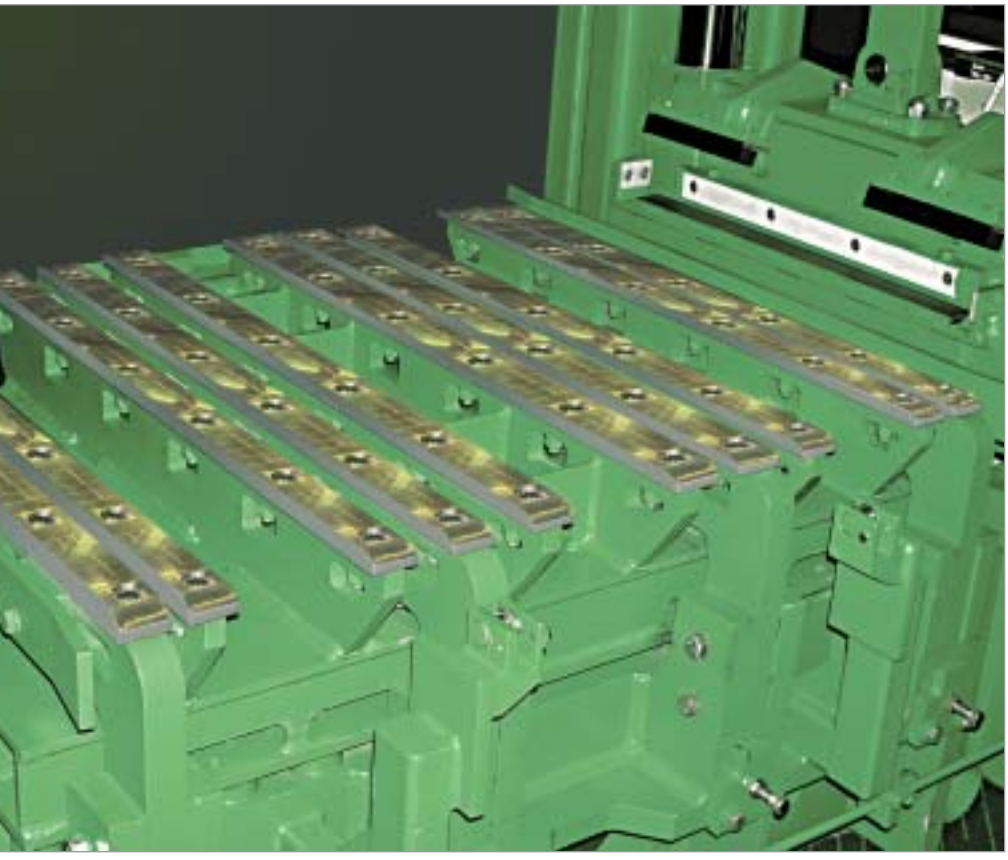
Widia-equipped vibration table and anvil edge strips for constant product quality

The heart of every block making machine is the vibration table, which, depending on the manufacturer, usually takes the form of a heavy, box-shaped welded construction. This unit also supports the vibration motors and is mounted on rubber-bonded metal elements. The vibration table edge strips are firmly connected above the vibration table. In addition, 3 – 4 anvil edge strips (depending on the manufacturer) are arranged between the vibration table edge strips, but these are firmly connected to the machine frame and lie approximately 1 mm deeper than the vibration table edge strips. The vibration table of every block making machine works up to 6 times per minute, depending on the product, whereby 300 kN vibration force acts each time on the concrete to bring it into shape. Decisive for the product quality is that the vibration table and anvil edge strips are level-surfaced.

During the manufacturing process, up to 6 pallets per minute are pushed onto the vibration table. This usually takes place via a chain conveyor, v-belt or finger feed. After positioning the pallet on the vibration table, the appropriate mould for paving stones, hollow blocks, corner blocks or kerbstones, etc. is lowered.

The concrete mixture is now poured into the mould and compressed by the tamper head. At the same time, the mould and the pallet are also pressed against the fixed anvil edge strips of the vibration table, which is normally mounted on rubber-bonded metal elements. The concrete is subsequently compacted by the vibrations of the block making machine, whereby the pallets, vibrating edge strips and also the anvil edge strips are subject to the highest degree of wear. Although the pallets are cleaned on each cycle and usually oiled as well, considerable wearing of the vibration table edge strips and anvil edge strips cannot be avoided.



Vibration table of a block making machine with anvil and vibration table edge strips.

An empty, unloaded pallet is loaded onto the table from the backing concrete side whilst the loaded pallet with the finished products is pushed out of the production area on the facing concrete side. If normally wearing parts are used, the user of the block making machine is forced to carry out frequent maintenance work on the vibration table, since otherwise the v-shape wearing of the vibration table and anvil edge strips causes height tolerances in the product, leading to insufficient compaction. In addition to this, the pallets are subject to unnecessary wear if the vibration table edge strips are worn.

The Contex Widia wear technology, which is already used in the precast concrete part industry all over the world, has now been successfully applied here to reduce costs and ensure quality. By means of a special process, the vibration table edge strips and anvil edge strips have been equipped with Widia elements. An extremely precise surface treatment of the Widia elements, which exhibit surface hardnesses of over 90 HRC, guarantees perfect surfaces and minimum tolerances of the parts.

Widia-equipped vibration table edge strip

Whereas conventional edge strips normally have to be replaced 2 – 3 times a year and constantly re-adjusted, which results in very costly interruptions in production, Widia edge strips can often be used for over two years without even having to be adjusted again. Many customers all over the world in the field of block making machines are enthralled with this technology. The use of Widia wear prevention has been well-known in mixing technology for years and has now found a new use. The exclusive Widia technology can be used for pallets made of soft wood, hard wood or plastic.

As a rule, the Widia-equipped edge strips can be reground once. This prolongs the service lifetimes of the edge strips and costs can be further reduced. The Widia wear technology is also well-suited for additional uses such as chain guides and slide rails for pallets, magazines, and lifting and lowering ladders.

Further information:

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