

Puncher for flat extruded tiles

Sizes

Flat extruded square, rectangular and contour tiles of the size

TB min./max. 100/600 mm, TH max. 25 mm,

TS min./max. 110/ 600 mm

High output for the production of facing strips.

Smaller tiles can also be punched by using special punching tools.

For the production of non-rectangular tiles please contact our construction department.

Larger cutting lengths are possible with cut suppression which could reduce the cutting accuracy.

The cutting accuracy is ± 0.25 mm with a variation of clay column speed of max. ± 5 %.

The tile edges may be round, angular, antique or chamfered.

Technical characteristics

- 1..... Base frame of solid welded steel construction
- 2..... The driving elements are maintenance-free running in ball bearings and linear bearings.
- 3..... The head frame mainly consists of aluminium.
- 4..... The punching tools are operated by special pneumatic cylinders.
- 5..... The clay column is conveyed on a felt belt avoiding the sticking of the clay column on the belt after punching.
- 6..... The clay column speed is measured by means of a measuring roller with pulser.
- 7..... The high cutting accuracy is achieved by electronic control.
- 8..... The cutter is driven by a servo-motor with 18 Nm and 2000 r.p.m., corresp. to approx. 4 kW.



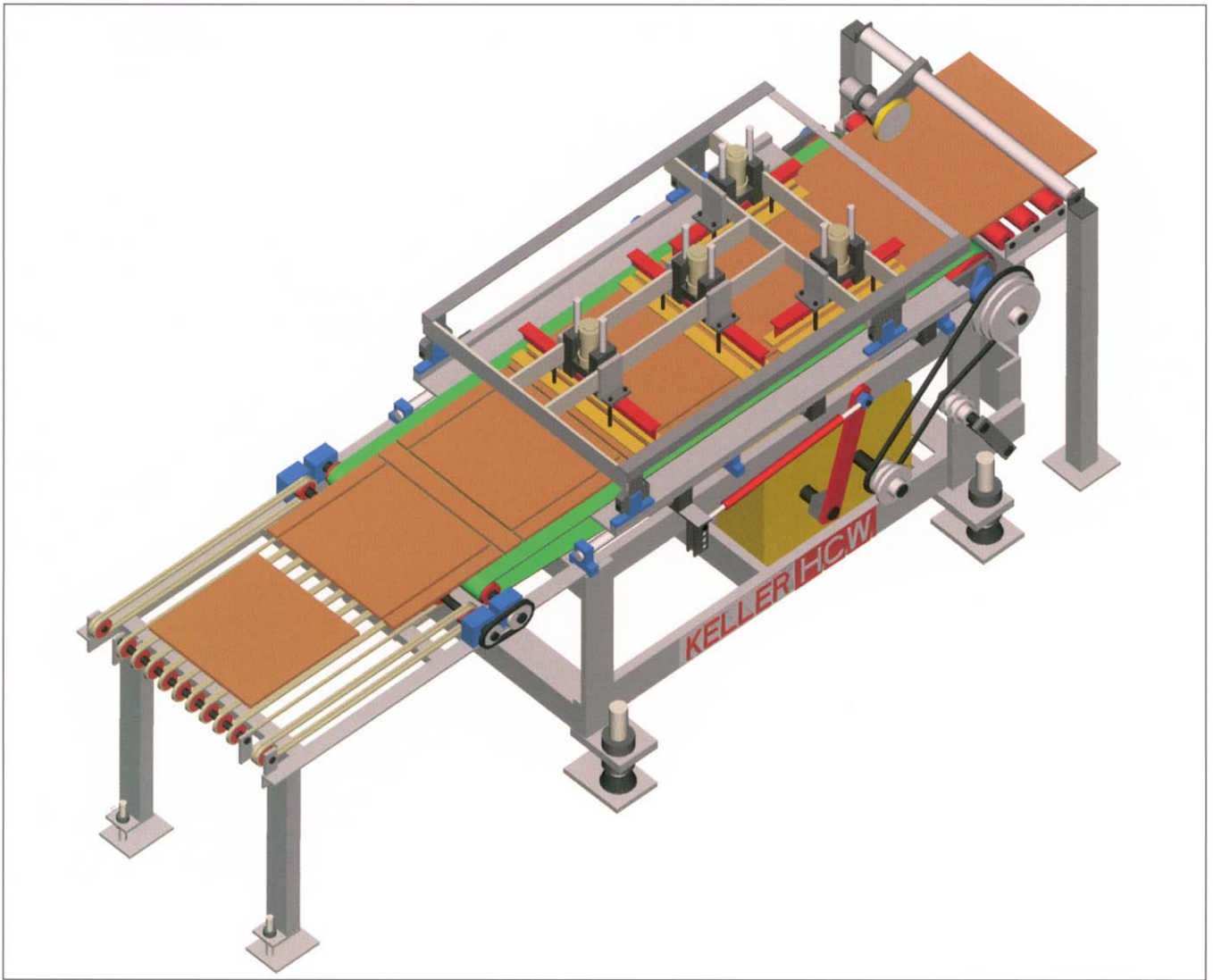
KELLER HCW offers innovative technologies for the production of:

- Bricks, hollow bricks and roof tiles
- Facing bricks and pavers
- Split and floor tiles
- Refractory products as well as
- Measuring and control system
- Automation

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Operation

The clay column speed is measured by means of a measuring roller operating on the waste strip and is then transmitted via the switchbox to the servo-motor which drives the punching table and the belt conveyor.

The clay column is conveyed by the conveyor, which runs at clay column speed, to the area of the punching table.

During the punching process the punching table with the top frame move forward at the clay column speed.

The four sides of square tiles are punched in 2 cycles. In the first cycle a longitudinal knife cuts the lateral waste and a transverse knife cuts the requested length of the tile from the clay column. In the second cycle a longitudinal knife as well as a transverse knife are operated. The punching knives are operated pneumatically.

As far as possible, the operation provides that clamping of the clay column between the punching knives is avoided. If clamping of the clay column cannot be avoided during the punching process, holding-down devices, fastened approx. 1 mm above the clay column, prevent lifting of the clay column.

The punched tile is accelerated on a V-belt conveyor installed after the belt conveyor, and conveyed towards the dryer car loading equipment.

Cutting system

0.5 mm thick fixed spring steel plates serve as punching tools. The spring steel holders are shaped so that the products are chamfered or rounded off during punching.

Varying shrinkage of the tiles can be rectified by the adjustment of the punching knives.

Additional equipment

Electronic equipment for the "suppression of cut" for TS between 600 mm and any length whatever. (Non-activation of the pneumatic punching knives).

Special tool for the manufacture of different contours.

Pre-grooving tools for the manufacture of special sizes (hexagon, octagon, tiles with round contours etc.)

Texturing rollers for rolling-in different textures.

Palletloading

The products are either conveyed to so-called "roller-box" loading equipment or transferred to pallets by means of suction transfer devices.

Punching table

Output

On general the punching output depends on the length of the tiles.

The output of the size TB 260 mm and TS 260 mm is 60 punches/min.

Compressed air requirement: approx. 300 NI/min., required working pressure: 6 bars.