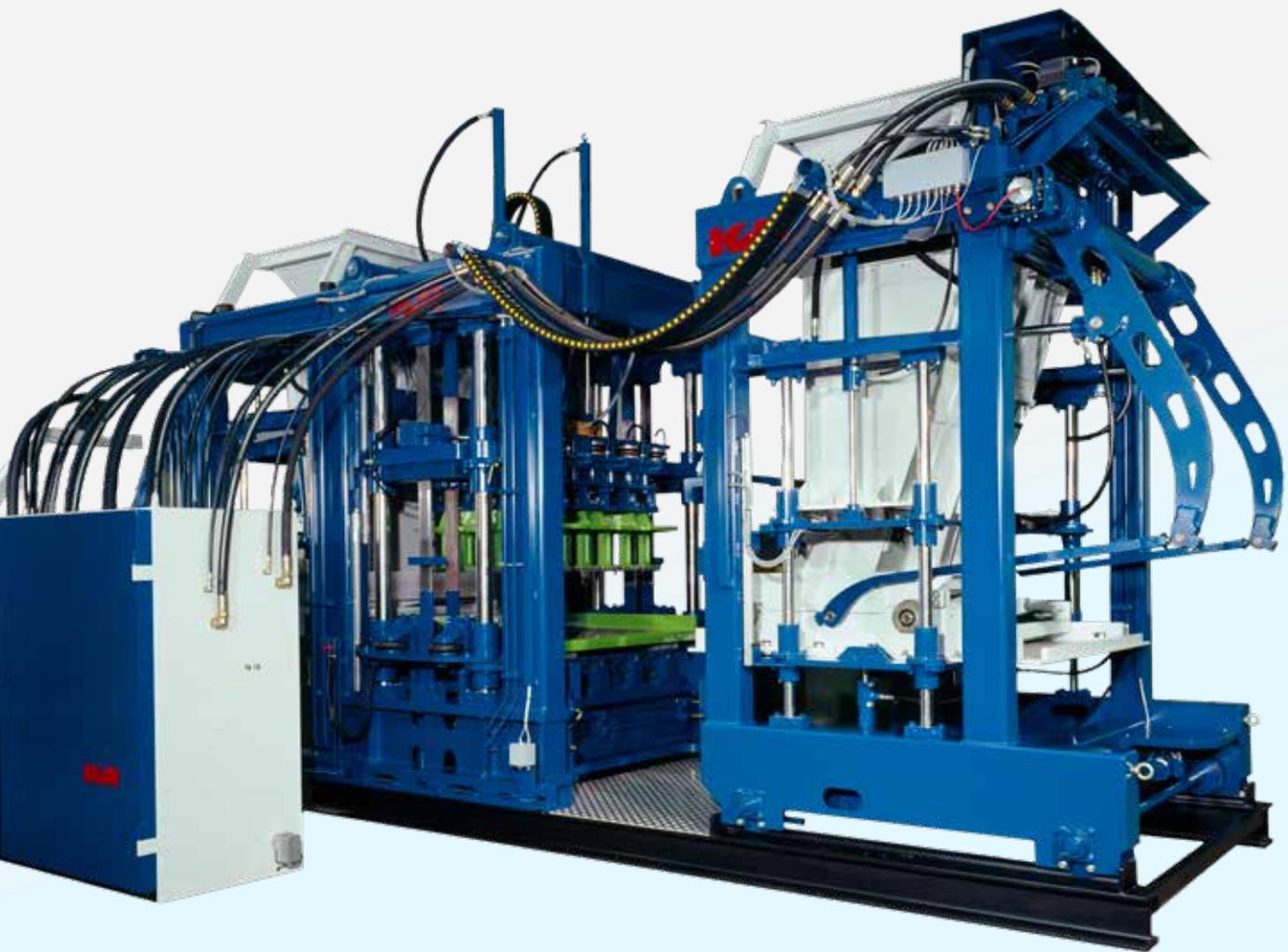


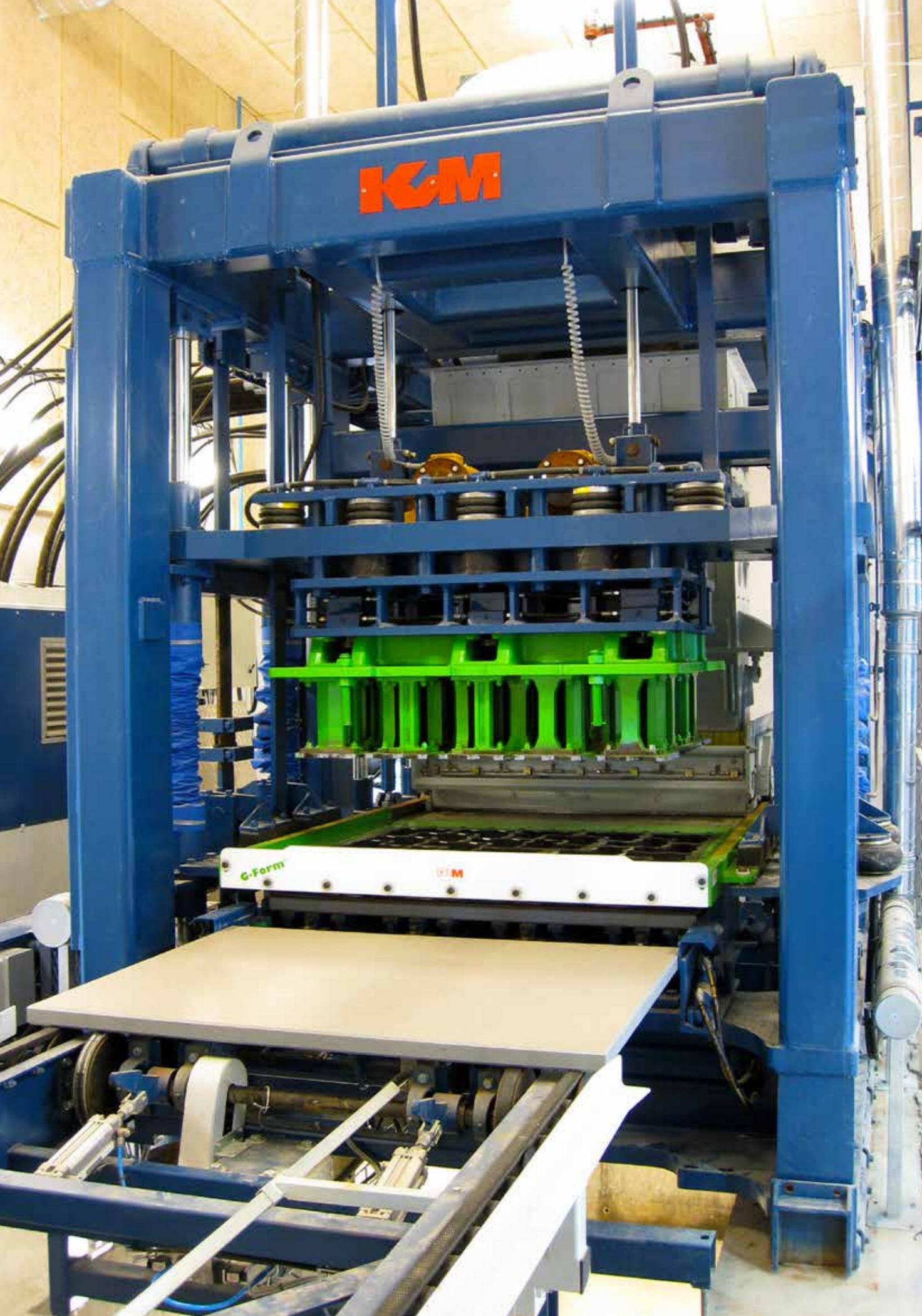
Block Machines

DE
EN
DA



Reliable.
Flexible.
Available.





➤ Block Machines

KVM manufacture versatile and long lasting block machines. Our solutions are based on more than 65 years of experience in the concrete industry. KVM Block machines allow our customers to produce high quality concrete products with a variation in types, sizes and shapes that is unmatched in the industry.

KVM Block machines are characterised by:

- High efficiency and precision
- Simplicity and ease of operation
- Durability and longevity
- Low energy consumption

Block Machine Design

The KVM Block Machines are characterised by a large variation in the production of concrete products. The machine is designed to provide a high degree of versatility in products from thin tiles to paving stones and curbs, all with high quality and large volume. The block machines are available in various models depending on requirements for capacity and features.

MACHINE FRAME



The main machine frame is a welded construction. Heavy plates are used to form a deep horizontal box under the whole machine to ensure optimum rigidity and fatigue resistance. This supports the RHS columns and vibration table. The machine is mounted on a sub frame isolated from the main frame by isolation dampers designed to absorb up to 95% of the vibrations.

ROBOT SYSTEMS



Robot systems implemented at the block machine's workstations replace a wide range of manual work tasks, heavy lifts and monotonous movements, thereby ensuring a good working environment for the operator and significantly reducing cycle time.

VIBRATION SYSTEM



With the KVM variable vibration system it is possible to freely and independently adjust both frequency and amplitude during both the filling and compacting cycles. The vibration table bearings are oil lubricated giving long life and high serviceability.

FILLING SYSTEM



The unique KVM filling system is based on utilizing the correct type of filling box and controlling the amount of concrete delivered into the filling box. This ensures a precise filling and uniform product density, height and surface quality.

HYDRAULIC STATION



The highly efficient KVM hydraulic system is equipped with proportional valves for high precision control and movement of relevant block machine components. The hydraulic system uses minimal power and ensures that a KVM block machine is the most energy efficient unit available.

KVM MOULD

KVM moulds are designed for long life and ease of operation. Non-wear parts are cast and come with a million cycles guarantee. Clever design ensures quick and easy replacement of wear parts.



CONTROL SYSTEM

The KVM-designed PC/PLC based block machine control system can operate the entire factory, from mixing system to out-feed line. The user-friendly interface is optimized to make the operator job as easy and intuitive as possible.



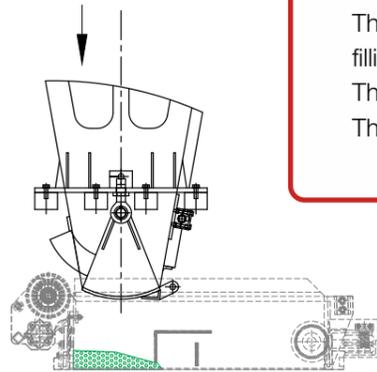
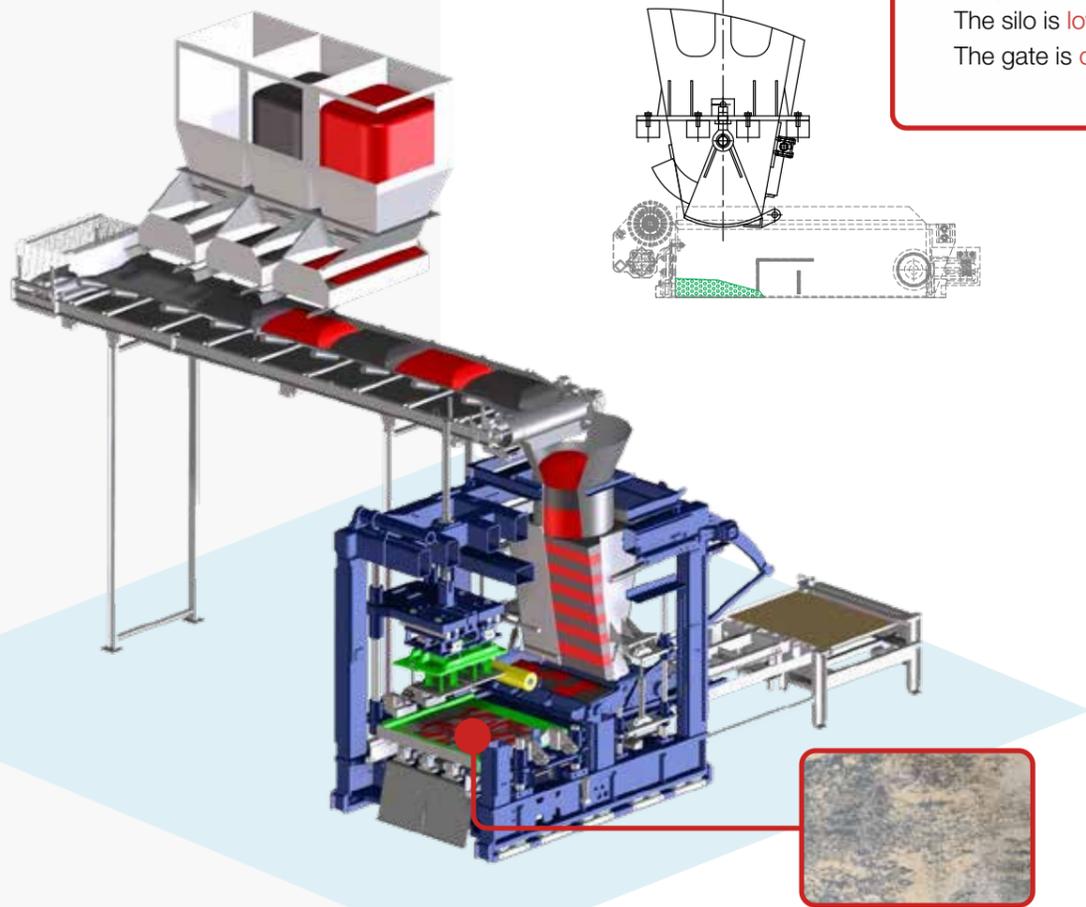
KVM Filling Concept

The centrepiece in a KVM block machine is the unique filling system, ensuring even and precise filling of all types of moulds. The filling system provides an impressive ability to produce any type of product and to quickly change over from one type of product to another.

The process is based on controlled handling of the concrete all the way from mixer to mould. The block machine concrete silo is fitted with

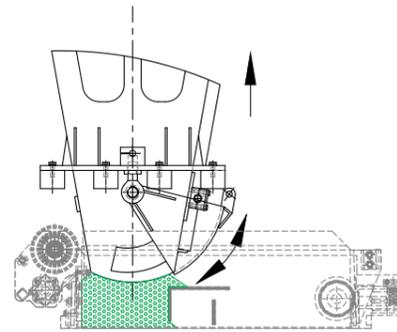
a non-segregation rubber sock insert and is continuously filled from the concrete buffers below the mixer. The silo is positioned to deliver the desired amount of concrete into the filling box. KVM filling boxes are adapted to specific types of product and to quickly change over to another type of filling box when relevant.

The filling process is divided into the following steps.



STEP 1 Starting position

This is the starting position for the filling sequence.
The silo is **lowered** into position
The gate is **closed**

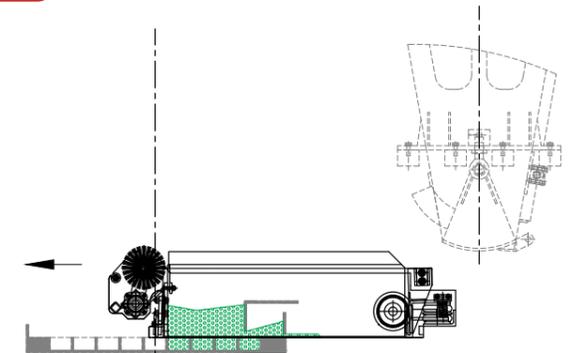


STEP 2 Filling the filling box

The silo is down and the gate is **opened**
Concrete is filled into the filling box
The gate is **closed**
The silo is raised to the up position
The filling box is full.

STEP 3 Filling of mould

Adjustable inserts ensure a correct amount of concrete and a uniform filling of the mould.



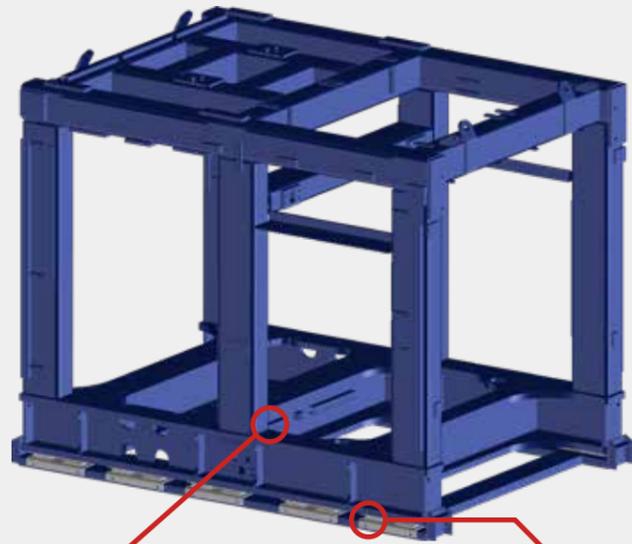
STEP 4 The mould is filled

The filling box is emptied into the mould and moves back to the starting position. There is a minimum of residual concrete left in the filling box.

Benefits:

- Better colour distribution
- No segregation
- Even filling

➤ Machine Frame



Machine Frame with heavy plate sandwich construction

- The frame is heated up to 650°C to relieve the frame of stresses due to welding.
- Sandwich construction with heavy plates is used for the frame base. This is to ensure optimum rigidity and fatigue resistance.
- RHS steel is used for the main frame.
- All this combined makes this the strongest machine frame in the market
- All frames come with a 5-year guarantee.

Welded in house with the knowhow from more than 500 machine frames

- All welding is done by certificated welders
- Checked by an external company
- Ultrasonic control
- Visual control
- 300h of welding for each frame

Isolation rubber dampers mounted for absorbing vibrations

- Absorb 95% of vibrations to prevent them from being transmitted into the floor
- Less foundation needed
- Fits any existing machine foundation



➤ Hydraulic System

Hydraulic Station with automatic energy saving program

The hydraulic system is designed to allow for very precise and simultaneous movement of relevant machine parts. High quality proportional valves are used to control high speed movements with minimal wear and tear.

The hydraulic valves, pumps, etc. are placed in an enclosed sound- and dust-proof cabinet positioned next to the KVM block machine. This ensures that no vibrations are transmitted to the sensitive components and allows easy access for maintenance and service.



Efficient energy savings

To save energy, reduce noise levels and unnecessary wear and tear, the energy saving program will automatically stop all motors when not needed and restart when required.



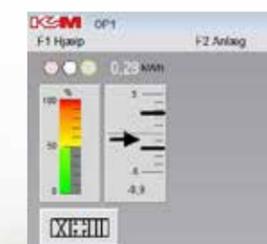
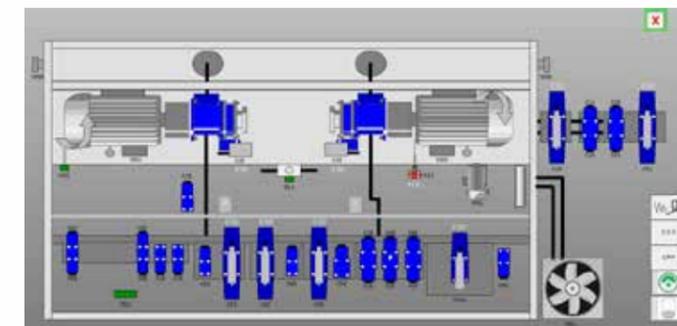
Consistent system performance

Cooling and heating function to control the oil temperature and viscosity to ensure consistent system performance.



Filtration system

Both online and offline filtration system for optimal operation and component durability.



Energy consumption

➤ Control System

Inhouse Control Design

The KVM control system is based on a centrally placed PC from which the operator runs the entire plant, from mixer-system to blockmachine, handling and cubing systems.

KVM machines are controlled by KVM designed PLC programs using Allan Bradley / Rockwell PLC equipment.

KVM PLC programmers have more than 30 years of experience in designing, testing, installing and servicing KVM machinery. This ensures a user-friendly operator environment.



The operator has easy access to all relevant production data giving an overview of the status of relevant parts of the entire plant.



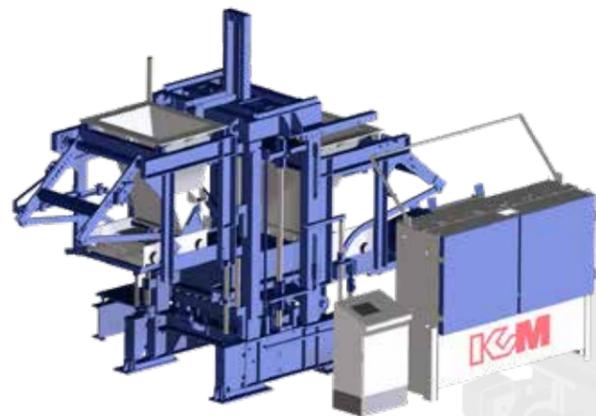
The control system will inform the operator when relevant preventative service is due and report the status to the plant manager. Production reports are presented to both machine operator and plant manager.



➤ Block Machine Range

Block Machine - Series 750

Type 62/62

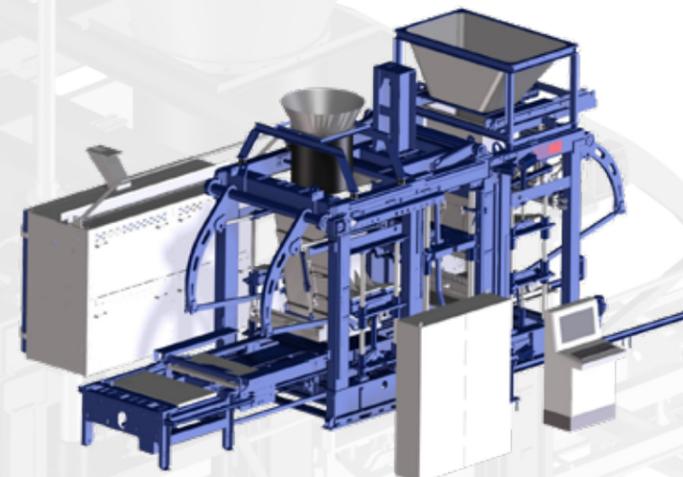


Series 750

Output height: 28 mm-300 mm
Pallet size: 750 x 650 mm
Max. Weight machine (kg): 5.400
Max. Vibration force (kp): 5.700

Block Machine - Series 1200

Type 62/105, 90/105

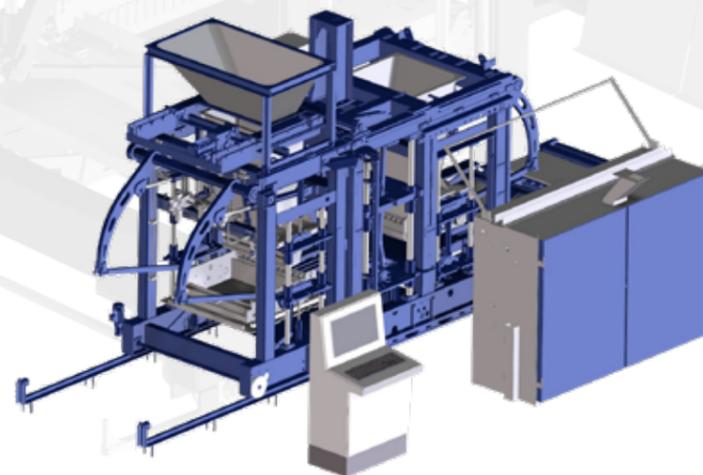


Series 1200

Output height: 28 mm-300/500 mm
Pallet size: 1200 x 650/1050 mm
Max. Weight machine (kg): 17.350
Max. Vibration force (kp): 10.000

Block Machine - Series 900

Type 62/80

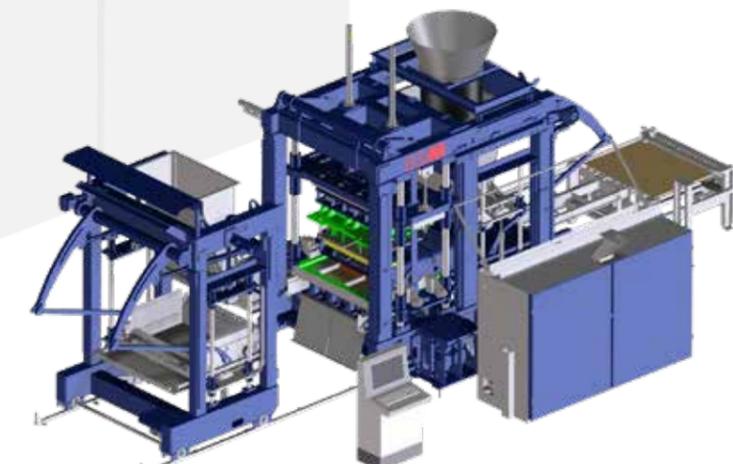


Series 900

Output height: 28 mm-300 mm
Pallet size: 900 x 750 mm
Max. Weight machine (kg): 10.500
Max. Vibration force (kp): 7.500

Block Machine - Series 1500

Type 62/125, 80/125, 105/125 and 125/125

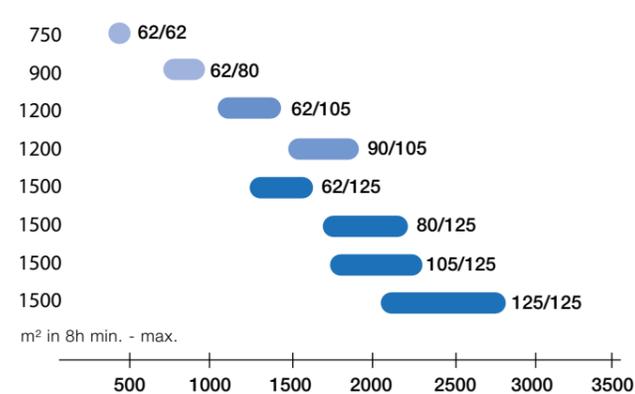


Series 1500

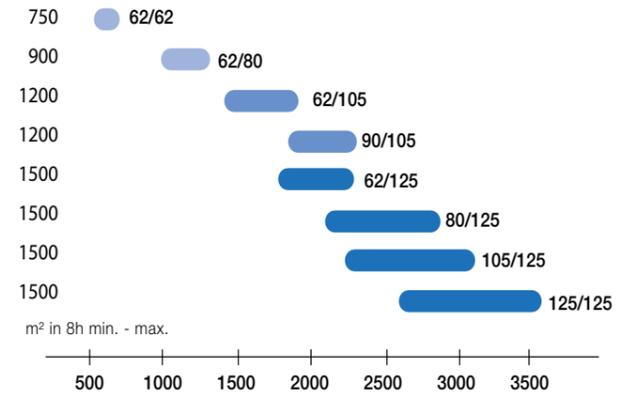
Output height: 28 mm-300mm (500)
Pallet size: 1400 x 750 mm to 1500 x 1300 mm
Max. Weight machine (kg): 35.000
Max. Vibration force (kp): 20.000

Capacities

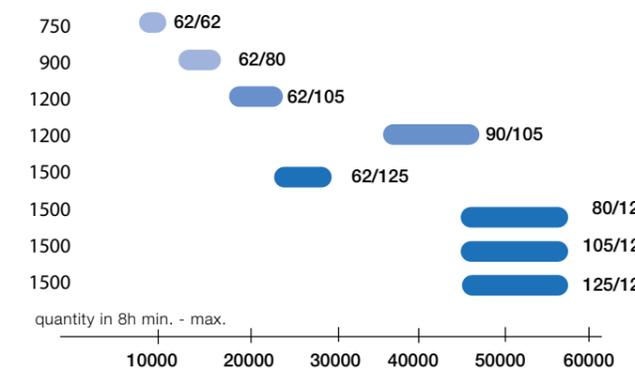
Facemix



Single layer



Block



* 100 % Efficiency and suitable materials



Features

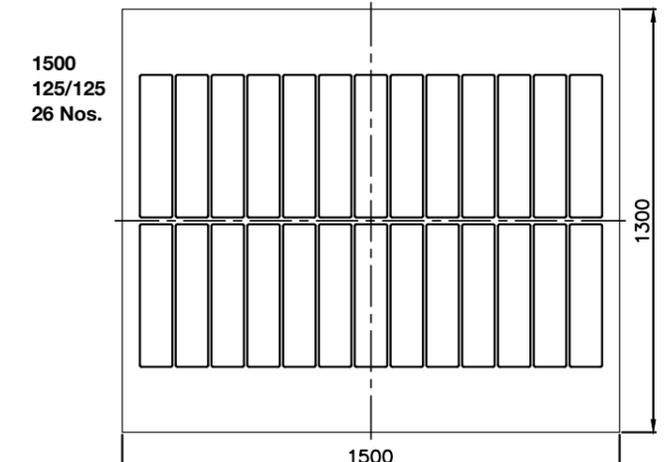
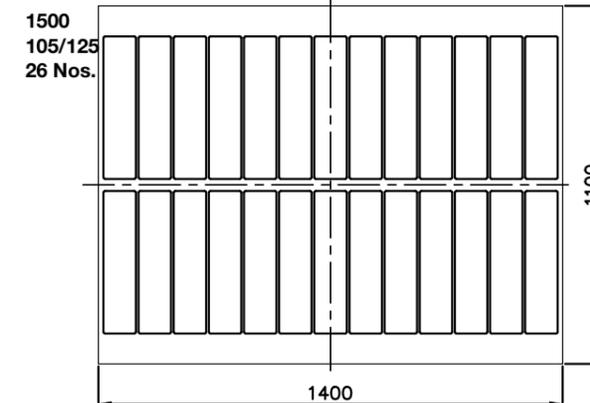
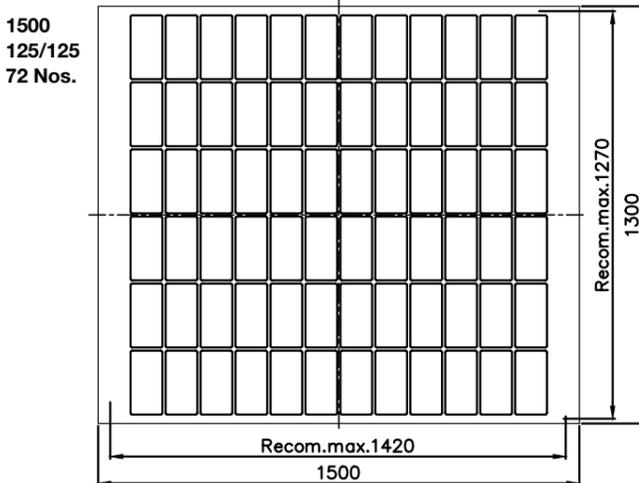
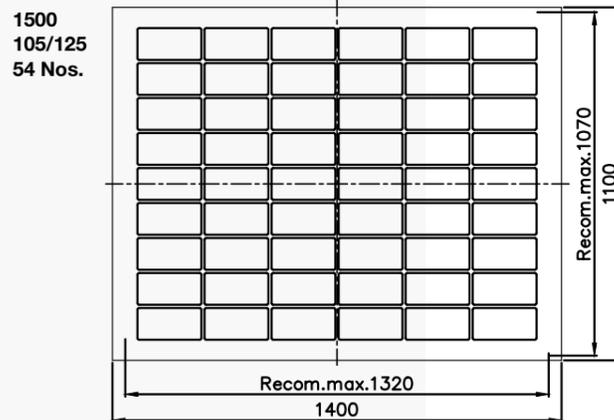
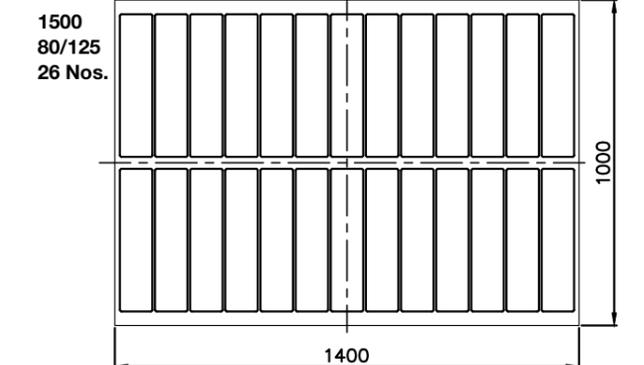
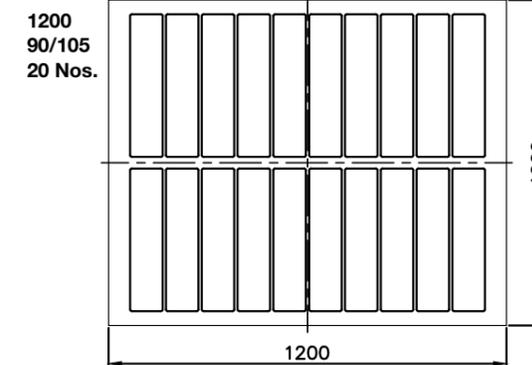
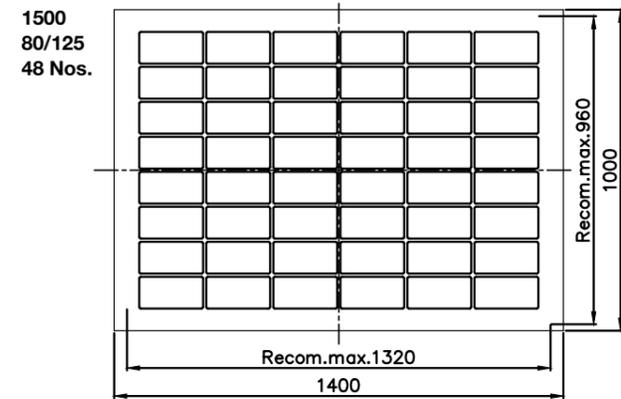
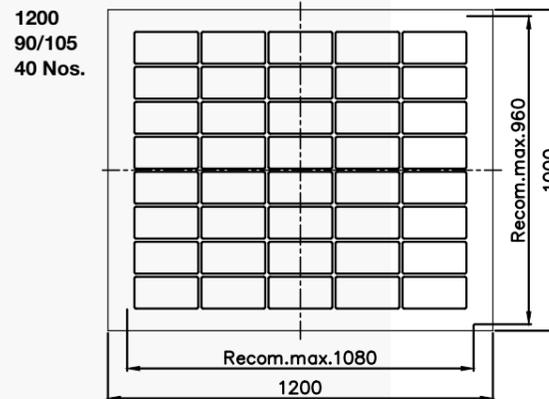
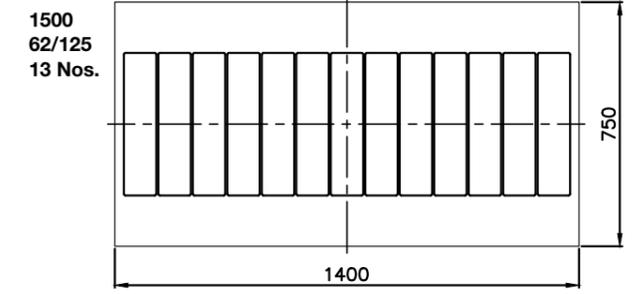
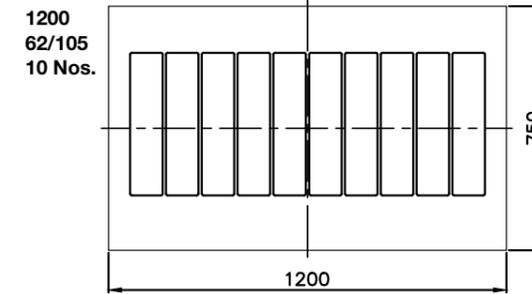
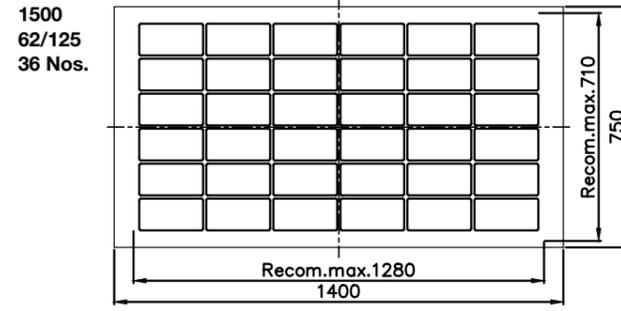
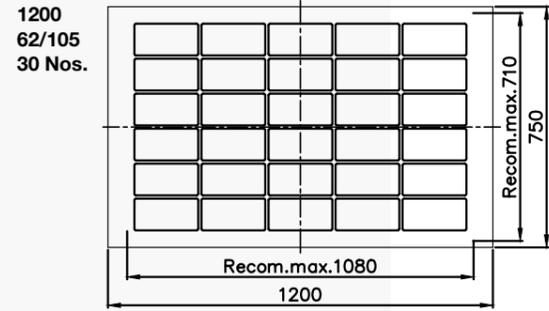
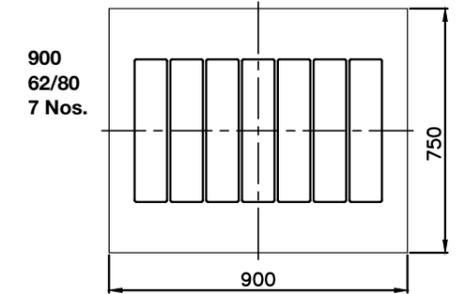
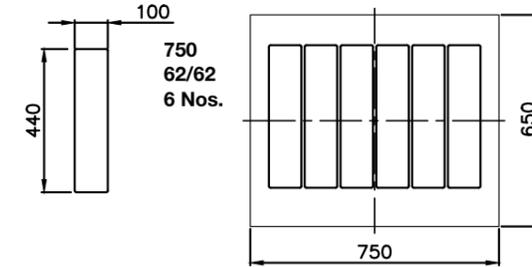
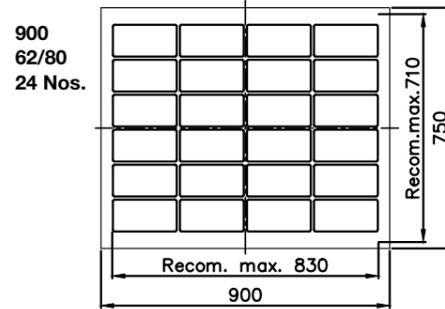
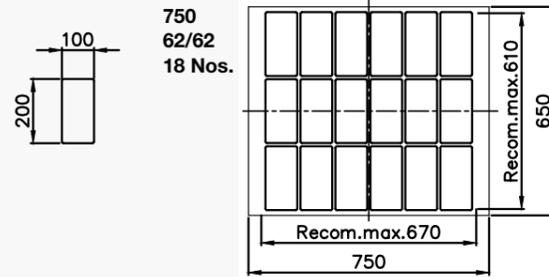
• = Standard equipment ○ = Selectable option

Machine type	750	900	1200	1500
KVM Auto independent amplitude & frequency control vibration system		•	•	•
KVM frequency-variable vibration system	•			
Machine frame stress relief by heat treatment		•	•	•
Automatic lubrication of vibrator			•	•
Main frame on isolation dampers	•	•	•	•
Concrete Hopper placed on rubber dampers	•	•	•	•
Rounded corners concrete hopper		•	•	•
Proportional controlled mould airbags		•	•	•
Variable displacement hydraulic pumps			•	•
Fixed displacement hydraulic pumps	•	•		
Low-energy motors and energy saving functions	•	•	•	•
Pneumatic Scraper Filling Box	○	•	•	•
Proportional direction valves		•	•	•
Linear position transducer		•	•	•
Automatic cooling & heating hydraulic oil	○	•	•	•
Offline filter hydraulic station	○	○	•	•
Extra filling section	○	○	○	○
Quick adjusting of filling table and hopper		○	○	○
Raise/lowering of hopper in operation		○	○	○
Quick Mould Change	○	○	○	○
Automatic mould change	○	○	○	○
Rubber buffer for height control	○	○	○	○
Steel Casting plate	○	○	○	○
Remote Control	○	○	○	○
Large Pallet magazine with unloading		○	○	○
Stack pallet inlet with small magazine	○	○	○	○
Spray on pallet feeder	○	○	○	○
Safety fencing on one side	○	○	○	○
Service platform	○	○	○	○
Flexible compacting head	○	○	○	○
Tamperhead vibrators	○	○	○	○
Tamperhead spray	○	○	○	○
Cross brush	○	○	○	○
Rubber Sock	○	○	○	○
Inspection gate for concrete hopper	○	○	○	○
Hopper linings Supralin, Stainless Steel, Rubber or Hardox	○	○	○	○
Rotating brush, hydraulic		○	○	○
Agitator Grid	○	○	○	○
Extra Filling Box	○	○	○	○
Wedge System for grate (static bars)		○	○	○
Extended mould cylinders for insulated blocks	○	○	○	○
Mould core puller	○	○	○	○
Device for styrofoam	○	○	○	○
500 mm Products	○	○	○	○

Production Boards

Standard Pavings

Building Blocks



► KVM Service

Key to our customer support philosophy is to be Reliable, Flexible and Available. 24/7/365 support for our customers is the foundation for KVM's long lasting customer relations. At KVM nothing is more important than the ability to keep our customers machinery and production running. Efficient service and the use of original KVM parts will minimize downtime and maximize profits.

The KVM plant operator Training Academy has for many years been a key factor in ensuring safe and efficient operation of our customers' production plants. Passing the KVM Training Academy course is an established mark of excellence for plant operators.



KVM offers exclusive after-sales service agreements, providing our customers with qualified assistance at all times.”

24/7/365 online service

Tel. +45 87 702 702

**Reliable.
Flexible.
Available.**



- kvm.com
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