



Concrete Block Machines:

- Small: H-212
- Small to medium: SILVER-530, SILVER-660, SILVER-850, SILVER-900
- Large: GOLD-700, GOLD-2020, SILVER-1500

Planetary Concrete Mixers:

- HPM-500, HPM-750, HPM-1125, HPM-1500, HPM-2250, HPM-2500, HPM-3000

Moulds:

- For various concrete products

Other Accessories:

- Block splitter
- Shotblaster
- Brushing machine
- Paver washer
- Wrapping machine
- Multicolor device

International Certification:

ISO 9001:2008

Patents:

- 4 patents and 9 utilities models
- 2 patents pending



Made in Korea

HAREX

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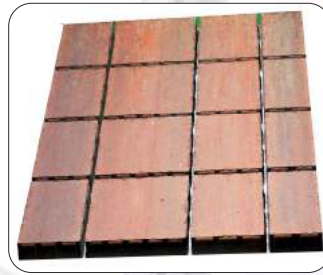
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Sample Special Products



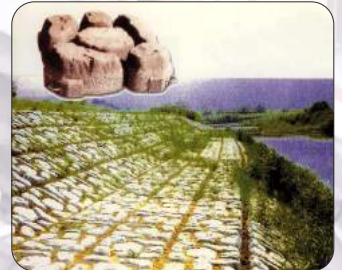
Multicolor paver



Multicolor paver



Riverbank protection block (large)



Example



Plant protection block



Example



Grass stone block (large)



Example



Paver - Permeable



Paver - Polished



Paver - Washed



Concrete plate - Polished (large)

Concrete Block Machines

Fully Automatic | Heavy-Duty | Economical
High Performance | Easy Maintenance

HAREX
Your Success Partner



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Concrete Block Machines



Models	GOLD-2020	GOLD-700	SILVER-1500	SILVER-900	SILVER-850	SILVER-660	SILVER-530	H-212
Pallet Size (mm)*	1,400 x 1,300 x 16	1,400 x 700 x 14	1,400 x 1,000 x 30	900 x 900 x 12	850 x 530 x 9	660 x 530 x 9	530 x 530 x 6	450 x 250 x 4.5
Effective Area (mm)	1,300 x 1,250	1,250 x 650	1,250 x 900	860 x 860	820 x 500	630 x 500	500 x 500	400 x 200
Block Height (mm)	60 - 500	60 - 500	50 - 200	60 - 200	60 - 200	60 - 200	60 - 200	60 - 200
Vibrator (no.)	4	4	6	2	2	2	2	2
Motors for Vibration	45 kW x 2	30 kW x 2	22 kW x 2	18.5 kW x 2	15 kW x 2	12 kW x 2	7.5 kW x 2	2.2 kW x 2
Production Capacities**	Per Pallet	Per Pallet	Per Pallet	Per Pallet	Per Pallet	Per Pallet	Per Pallet	Per Pallet
	Output Per Hour	Output Per Hour	Output Per Hour	Output Per Hour	Output Per Hour	Output Per Hour	Output Per Hour	Output Per Hour
Block (400 x 200 x 100 mm)	33	10	18	14	7	5	4	2
Block (400 x 200 x 150 mm)	21	7	12	10	5	4	3	1
Block (400 x 200 x 200 mm)	18	6	10	8	4	3	2	1
Paver UNI (225 x 112.5 mm) ***	50	25	35	18	12	10	8	3
Without face mix	7,500-9,000	6,000-6,750	8,000-8,400	4,320-4,860	2,880-3,240	2,400-2,700	1,920-2,160	900
With face mix	50	25	35	18	12	10	8	3
Paver Rectang. (200x100 mm)***	60	33	40	28	14	12	8	3
Without face mix	9,000-10,800	7,920-8,910	9,000-9,600	6,720-7,560	3,360-3,780	2,880-3,240	1,920-2,160	900
With face mix	60	33	40	28	14	12	8	3
Curbstone A ⁽¹⁾ w. face mix	5	3						
Curbstone B ⁽²⁾ w. face mix	4	2						
Curbstone C ⁽³⁾ w. face mix	4	2						
Curbstone SA ⁽⁴⁾ wo/w face mix	7	4						
Curbstone SB ⁽⁵⁾ wo/w face mix	6	3						
Curbstone SC ⁽⁶⁾ wo/w face mix	6	3						

Concrete Mixers



HPM	500/300	750/500	1125/750	1500/1000	2250/1500	2500/1750	3000/2000
Input (loading) (liter)	500	750	1,125	1,500	2,250	2,500	3,000
Output (liter)	330	500	750	1,000	1,500	1,750	2,000
Mixing star (no.)	1	1	1	2	2	2	3
Mixing blade (no.)	2	2	3	2	2	2	3
Scraper (no.)	1	1	1	2	2	2	3
Mixer power (kW)	11	18.5	37	45	55	75	90
Hydraulic power (kW)	2.2	2.2	3	3	3	3	4
Approx. weight (kg)	1,700	2,050	3,560	4,880	5,500	5,600	8,800

*Pallet size can be adjusted within certain limit according to customer's needs. Please consult Harex.

**The production capacities are theoretical and should be regarded as a guideline. Actual outputs may vary depending on many factors, such as aggregate condition, machine condition, operating skill and experience, etc.

***UNI Paver: 1 m² = Approx. 39 nos.; Rectangular Paver: 1 m² = 50 nos.

⁽¹⁾ 1,000 x 170 x 150 x 200(H) mm

⁽²⁾ 1,00 x 205 x 180 x 250(H) mm

⁽³⁾ 1,000 x 210 x 180 x 300(H) mm

⁽⁴⁾ 1,000 x 120 x 120(H) mm

⁽⁵⁾ 1,000 x 150 x 120(H) mm

⁽⁶⁾ 1,000 x 150 x 150(H) mm

Concrete Block Machines

GOLD-2020 / GOLD-700



Block Machines

The GOLD model machines are stationary, universal concrete block machines for large-scale production of light-weight and dense concrete products: bricks, hollow and solid blocks, pavers with/without face mix layer, curbstones, retaining wall blocks, and other blocks for construction, landscaping, civil engineering and environmental protection (Technical Data, p. 2).

- Heavy-duty machine frame structure with three parts: forming (press) part, base mix filling part and face mix filling part
- Base mix part and face mix part can be attached to and detached from forming part for easy mould change and maintenance.
- Face mix part for double layer concrete units (e.g., pavers, curbstones) is optional and can be retrofitted.
- Complete block making plant with equipment for batching and mixing, block forming, transport (elevator and lowerator, finger car, etc.) and cubing
- Four main shaft and sliders
- Proportional control valve that can control hydraulic speed via control touch-screen
- Filling box is freely suspended, so vibration is not transmitted to filling box.
- Hydraulic/electrical device for lifting/lowering filling box
- Agitators to facilitate filling of material into mould

- Integrated vibration table with four vibrators driven by high-efficiency inverter motors (servo motors optional)
- Centrifugal force of vibrators can be easily adjustable, and rpm can be infinitely variable.
- Mould mounting by pneumatic air-bag clamping system allows quick mould change.
- Oil heater, oil cooler, oil tank ventilator, oil temperature indicator, oil level indicator, oil filter
- Control with touch screen for easy menu selection, data input and modification

For Convenience Sake

Various equipment, standard or optional, to enhance and facilitate block production

- Pallet supplier/withdrawer (option)
- Air spray
- Device for handling defective blocks
- Pallet scraper and pallet turnover

Moulds

- Moulds of high precision and long life
- High precision: Design by CAD, CNC-machining, and strict quality control ensure precise dimensions of moulds.
- Long life: High-quality material and strict heat-treatment ensure long mould life.
- Various moulds for standard or custom-designed blocks



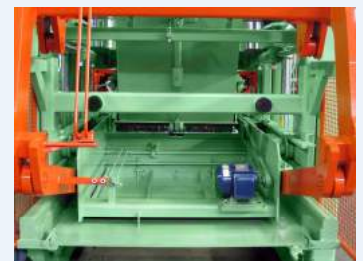
▲ Mould



▲ Control touch screen



▲ Mould clamping airbag



▲ Filling box



▲ Pallet scraper & turnover



▲ Device for handling defective blocks



▲ Air spray



▲ Pallet supplier/withdrawer

Transport & Cubing



Finger Car

A track-bound car that transports pallets with green blocks from elevator to curing room and cured blocks from curing room to lowerator

- Maximum load: 20 tons
- Number of floors: 18 (standard)
- Distance between floors: 400 mm (standard)
- Pallets per floor: 1
- Cable locking device and collector arm
- Driven by AC motor.
- Locking roller stoppers for stopping at the exact positions
- Communication with main control and cuber control
- Infinitely variable speed control by frequency regulator
- Finger car control with modular PLC
- In case curing room is located opposite to elevator and lowerator, finger car can be made to turn 180 degrees (turntable optional).



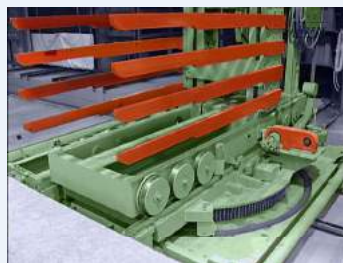
Cubing Plant

A heavy-duty plant that arranges blocks and stacks them on stock pallet in a desired "cube" ready for storage or delivery

- Clamping power: 1,000 kg
- Clamp turning: 270 degrees
- Right-left synchronizing gear to prevent the cube from inclining
- Hydraulic unit equipped with oil heater, oil cooler, oil tank ventilator, oil level indicator, oil temperature indicator, and oil filter
- Consists of:
 - Cuber
 - Arranging/remodeling device
 - Stock pallet magazine
 - Slat-band or roller conveyor
 - Hydraulic unit
 - Cubing plant control
- Option:
 - Wrapping machine



▲ Finger car control



▲ Finger car turntable



▲ Cubing (block height 500 mm)



▲ Pallet magazine

Rack System

A rack conveyor system, with a loader, unloader, rack conveyor, rack, and transfer car can be installed instead of a transfer car system with an elevator, lowerator and finger car: Elevator->Loader, Lowerator->Unloader, Finger car->Transfer car or forklift



▲ Loader/Unloader/Rack conveyor



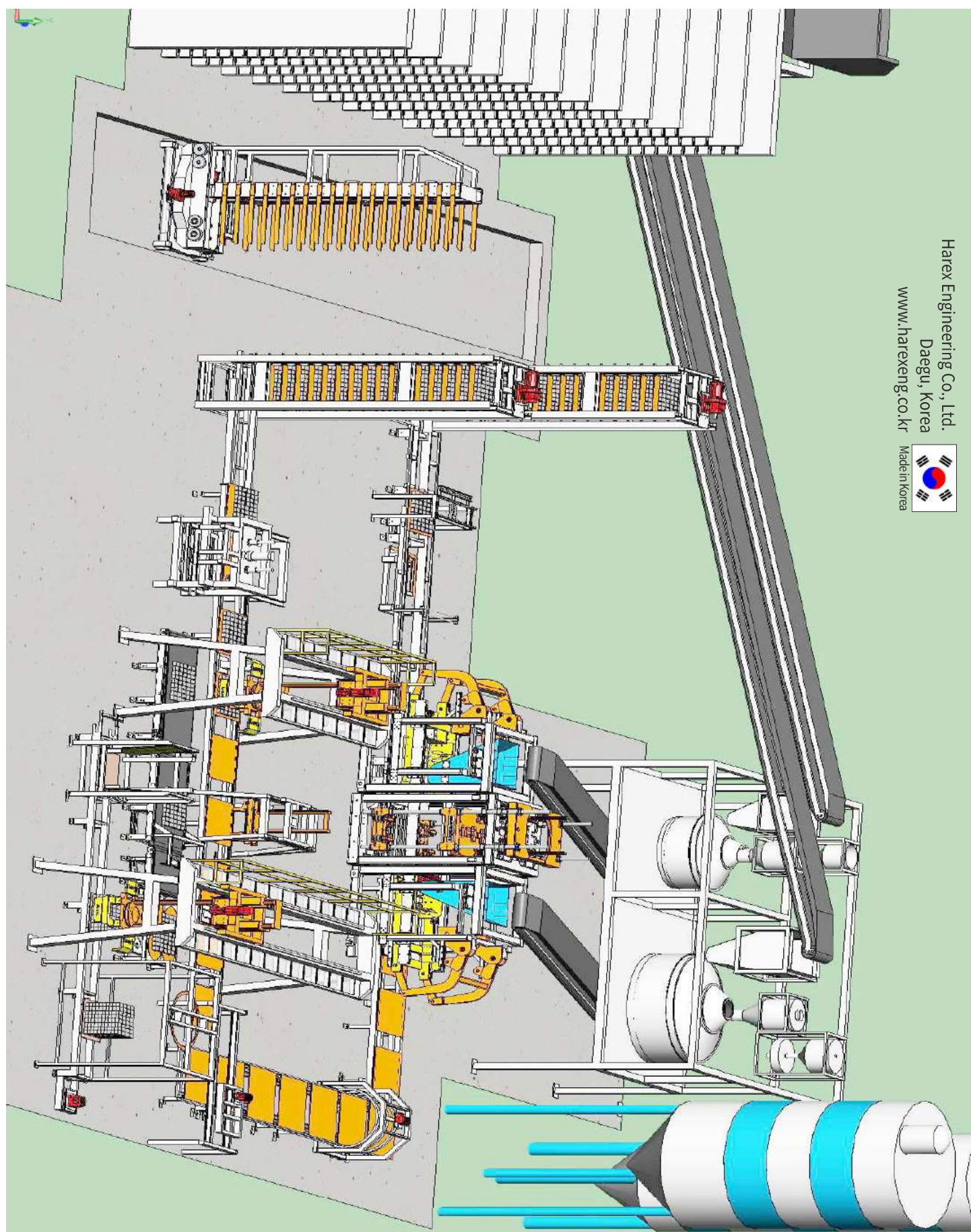
▲ Transfer car



▲ Curing room



▲ Finger Car System (GOLD-2020, GOLD-700)



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Elevator-Lowerator-Finger Car-Cuber System

Concrete Block Machines

SILVER-1500



1. SILVER-1500 / 2. Control Unit / 3. Loader / 4. Unloader / 5. Cubing Plant / 6. Hydraulic Unit / 7. Platform / 8. Mixer / 9. Hoppers

SILVER-1500

Harex SILVER-1500 is a large concrete block machine that can produce concrete bricks, hollow and solid blocks, pavers, and other concrete materials for construction, landscaping and civil engineering. (Technical Data, p. 2).

- Robust, compact and trouble-free
- Highly cost-effective
- Six special powerful vibrators braked by inverters
- Face mix device enables production of double-layer concrete pavers.
- High quality moulds available for standard or custom-designed blocks
- Various equipment for efficient block production, such as batching and mixing, loader, unloader, and cuber
 - Pallet Size: 1,400 x 1000 mm
 - Block Height: 50 - 200 mm

NOTE: The loader and unloader work automatically; however, each pallet with green blocks must be supported by legs on the four corners manually. When enough pallets are stacked, they are moved by a forklift. This way dispenses with racks and rack carrier. Of course, loader, unloader, racks and rack carriers can be installed for automatic operation.



▲ Cuber

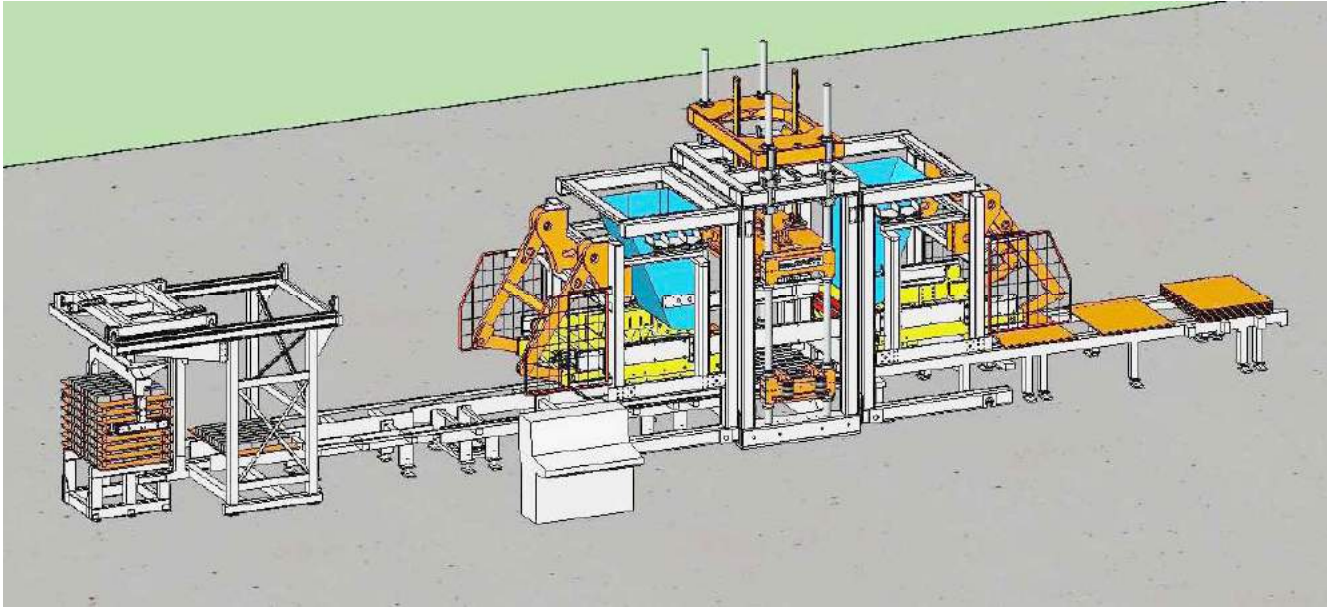


▲ Loader/Unloader

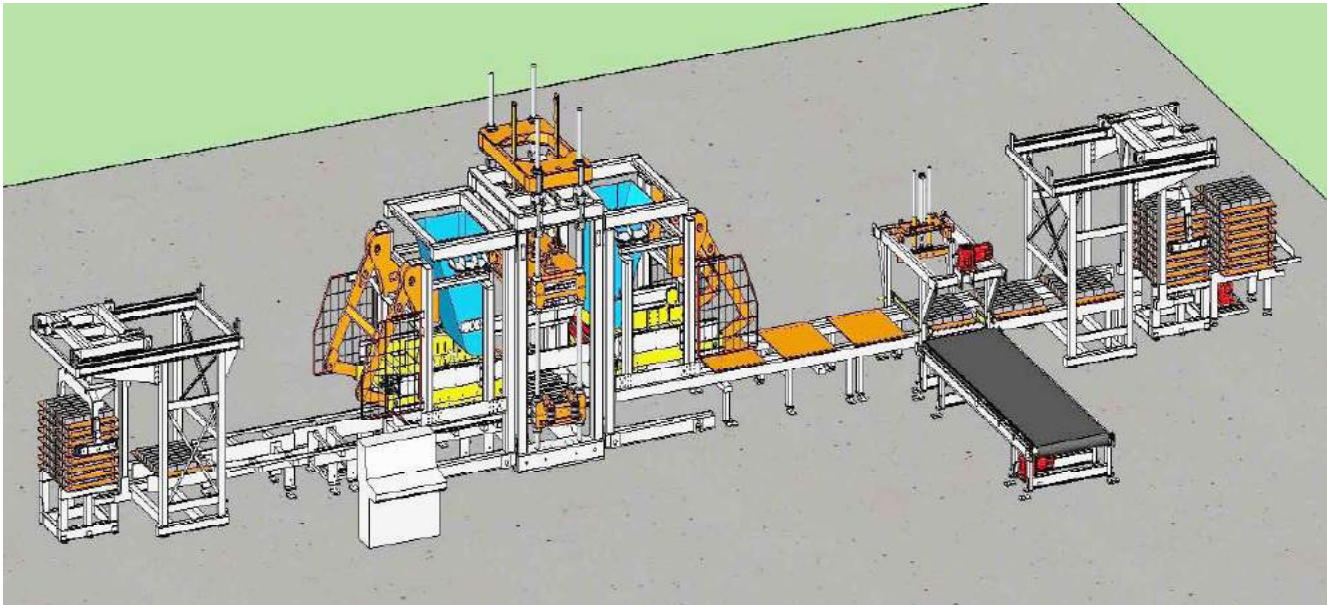


▲ Unloading

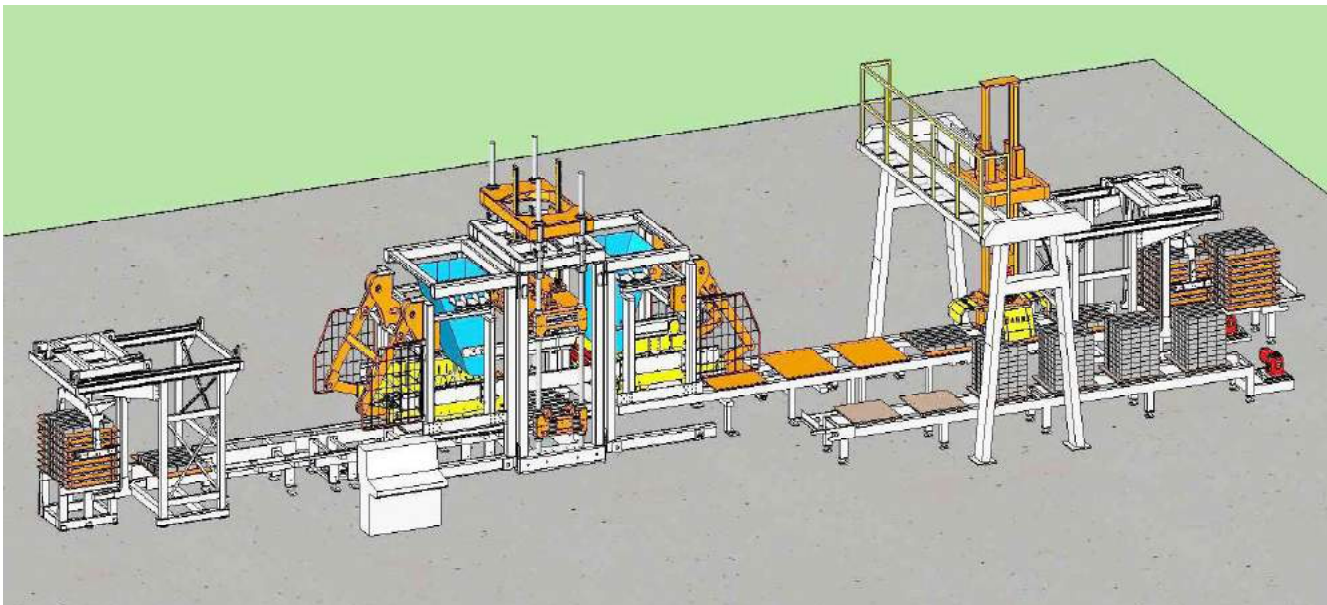
▲ Leg-Forklift System (SILVER-1500)



Loader System



Loader-Unloader-Product Conveyor System



Loader-Unloader-Cuber System

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Concrete Block Machines

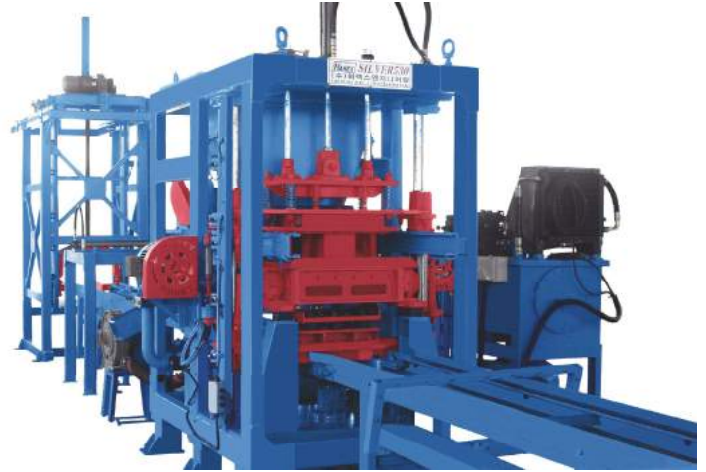
SILVER-900/850/660/530 | H-212



SILVER Models

The SILVER model machines are stationary, small to mid-range concrete block machines. They are reasonably priced and very versatile, and can produce bricks, solid and hollow blocks, various pavers with/without face mix layer, retaining wall blocks and other materials for construction, civil engineering and landscaping (Technical Data, p. 2).

- Robust, compact and trouble-free
- Highly cost-effective
- Two special powerful vibrators braked by inverters
- Oil tank ventilator, oil heater and oil cooler
- Face mix device enables production of double-layer concrete pavers.
- Filling box is freely suspended, so vibration is not transmitted to filling box.
- Filling box moves by means of powerful hydraulic cylinder with shock-reducing device, and its speed can be adjusted by valve.
- Impeller driven by geared motor is mounted to facilitate filling of materials into mould.
- High quality moulds available for standard or custom-designed blocks
- Various equipment for efficient block production, such as batching and mixing; loader, unloader, rack conveyor or carrier; cuber; transfer car
- Pallet Size:
 - S530: 530 x 530 mm
 - S660: 660 x 530 mm
 - S850: 850 x 530 mm
 - S900: 900 x 900 mm (optimized for block production)



H-212

H-212 is a very compact machine capable of producing concrete bricks, solid and hollow blocks and pavers (Technical Data, p. 2).

- Robust, compact, highly cost-effective and trouble-free
- Perfect choice for start-up
- Formed blocks can be handled by hand; thus, no additional handling equipment is needed.
- Hydraulic unit includes oil tank ventilator, oil temperature indicator, oil level indicator, oil heater and oil cooler.
- Pallet size: 450 x 250 mm (effective area: 400 x 200 mm)



▲ Mould & pallet table



▲ Mould



▲ Control box (inside)



▲ Depallet rubber



▲ Pallet feeder



▲ Machines under manufacture



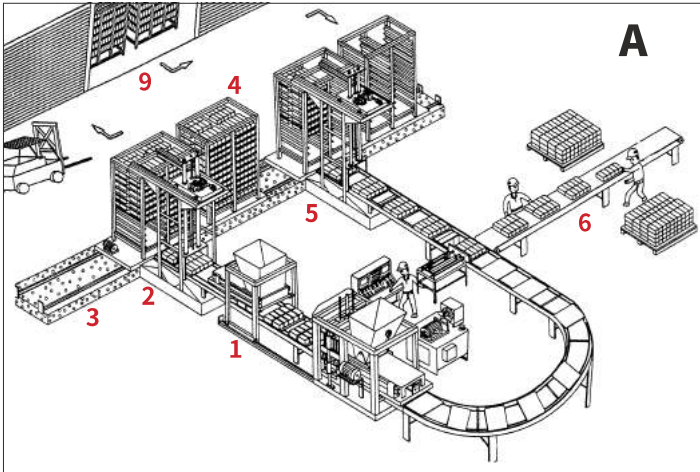
▲ Main machine & hydraulic unit



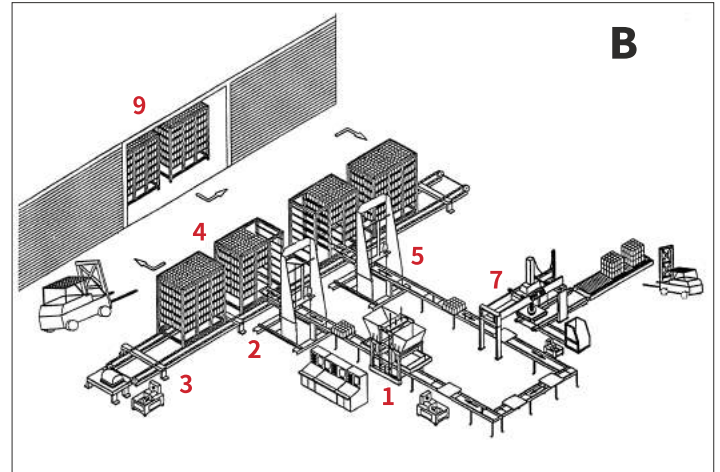
▲ Cuber



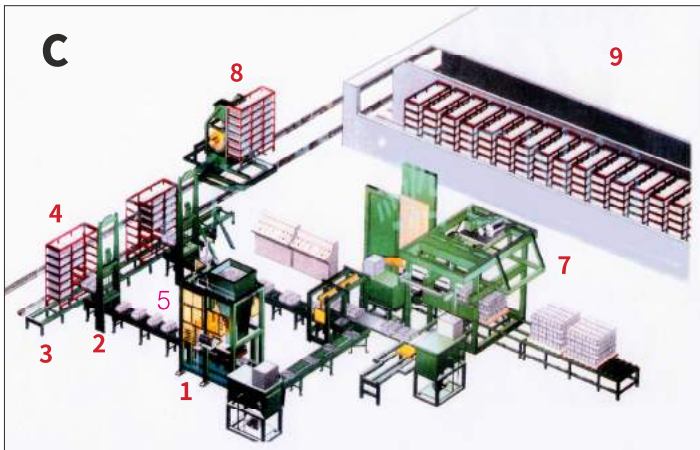
- Various degrees of factory automation
 - Chain Conveyor System (S530)
 - One Rack Carrier System (S530/S660)
 - Two Rack Carrier System (S530/S660/S850/S900)
 - Rack Conveyor System (S530/S660/S850/S900)
 - Rack Conveyor + Cuber System (S530/S660/S850/S900)
 - Rack Conveyor + Cuber + Transfer Car System (S530/S660/S850/S900)
 - Examples:



▲ Rack conveyor system



▲ Rack conveyor + cuber system



▲ Rack conveyor + cuber + transfer car system

1. Block machine
2. Loader
3. Rack conveyor
4. Rack
5. Unloader
6. Product conveyor
7. Cuber
8. Transfer car
9. Curing room

	Transport to / from Curing Room	Stacking Blocks on Pallet
A	By Forklift	By Hand
B	By Forklift	By Cuber
C	By Transfer Car	By Cuber



▲ Rack conveyor & rack



▲ Cubing plant



▲ Platform for mixers & hoppers



▲ Aggregate storage hoppers



▲ Rack carrier system



▲ Rack conveyor system



▲ Transfer car & curing room

Concrete Mixers & Batching Equipment



Concrete Mixers

Harex planetary mixers (HPM) with vertical axles and coaxial motors allow rapid and powerful performance for dry, semi-dry and wet mixing for all types of concrete.

Mixers with various mixing capacities are available (Technical Data, p. 2).

Powerful & Efficient Mixing:

- Automatic water dosing and moisture probe
- Mixing pan with wide diameter allows low thickness of material, resulting in shorter mixing time and uniform mixing.
- Rapid discharge via a circular discharge door operated by a hydraulic ram
- Gearbox with a wide diameter disk gear allowing silent and movement-free rotation even in heavy-duty conditions
- Progressive and continuous movement of material inside the mixing pan
- Optimized design of mixing stars, mixing blades and scraper
- Material can be supplied to mixer either by conveyor or by skip.

Easy Maintenance & Safety:

- Wide doors allow easy access to inside of mixer.
- Easy replacement of wear-resistant alloy steel linings of the wall and bottom of mixing pan
- Inspection door for checking inside of mixer
- Covers with safety switches

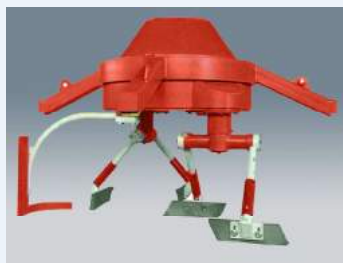
Batching Equipment

Harex offers heavy-duty, efficient batching equipment including

- aggregate hoppers
- cumulative weighing conveyors
- aggregate screening device
- various weighing (scaling) hoppers
- platform for mixers and hoppers
- conveyors
- cement silos



▲ Inside mixer



▲ Gearbox with mixing blades and scraper



▲ Mixing



▲ Door for inspection



▲ Skip & hoist



▲ Agg. hoppers & cumulative weighing conveyor



▲ Platform for mixers & hoppers



▲ Conveyors

Block Processing Equipment

Add value to your products by various processing.



Brushing Machine

An equipment with rotating cylindrical brush(es) that sweeps and polishes over pavers or slabs to produce smooth surface

- Number of brushes: Type A: 1; Type B: 2; Type C, Type C+: 3
- Brush driven by 30 HP motor; frequency of rotation easily adjustable in terms of inverter
- Easy integration into existing cubing line and minimal installation space
- Simple installation and easy replacement of brush
- Adjustable brush height (maximum 200 mm)
 - Type A, Type B, Type C: Manual handle
 - Type C+: Automatic adjustment
- Consists of main machine, dust collection (10 HP), clamp, and control



Paver Washer

An equipment that sprays water and air onto formed pavers and removes cement on the surface and exposes aggregate

- Integrated into block production line; no additional space needed
- Eighteen water spray nozzles and 10 air spray nozzles
- Two pairs of water spray nozzles and two pairs of air spray nozzles
- Height adjustment by manual handle
- Stainless pipe to minimize blocking of nozzles
- Water cleaning filter
- Consists of spray, water tank, high-pressure pump, water filter, and control



Shotblaster

An equipment that shoots small steel balls to the surface of concrete pavers to chip off soft matrix and expose coarse aggregate

- Destacker for input of blocks to be processed, cuber for stacking processed blocks
- Input and output conveyors
- Consists of shotblaster, dust collector, and control



Block Splitter

An equipment that splits two blocks formed symmetrically into half. The split surfaces expose aggregate and have texture like natural stone.

- May be integrated into existing cubing line or installed as a separate line
- Applicable to concrete blocks or retaining wall blocks
- Strong and exact splitting in terms of hydraulic power



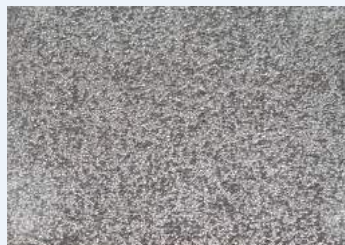
Multicolor Device (pre-production)

Unlike traditional single-color pavers, the multi-color pavers are made possible by multicolor device. Various colors are supplied to the surface of pavers before they are formed.

- Consists of separate hoppers and conveyors which supply different colors to the surface of pavers.
- Up to four colors
- Beautifully colored pavers that please the eyes



▲ Multicolor pavers



▲ Washed paver (surface)



▲ Brushed paver (surface)



▲ Shotblasted paver