

TIGER PS 50 INTERLOCKING CONCRETE BLOCK MAKING MACHINE

THE MACHINE

MACHINE - Inter Locking Block Making Machine

MAKE - Tiger Machine Company Ltd., Japan

MODEL - PS 50

YEAR - 2002

HOUR - LOW HOURS

CONDITION - GOOD

- ❖ The machine produces 2400 concrete blocks of normal size bricks and 4000 concrete blocks of half size bricks in one hour.
- ❖ There are 12 moulds to make blocks of different sizes and shapes available. If required more moulds can be prepared.
- ❖ The machine is fully automatic and it has storage space for 8 hrs production.
- ❖ Mould changing also automatic. It takes 5 minutes to change the mould during production.
- ❖ Area required to put up the plant is nearly 3 acres.
- ❖ The machine will be shipped to India in 15~20 containers.

THE MANUFACTURER



TIGER MACHINE COMPANY LTD. is the world's leading manufacturers of concrete products machinery and related equipment. From mixing and batching, to the greatest variety of concrete products machines on the market, they offer the most diverse, versatile and innovative line of equipment in the world.

Their line of machinery includes unique product handling systems in a variety of configurations, four types of cubing equipment systems and the most complete line of specialty and auxiliary equipment.

The name TIGER is synonymous with quality products, services and leadership through innovation in the concrete products industry for over 60 years. They have the most modern technology and state-of-the-art engineering, and manufacturing processes applied to the equipment. Features such as ease of operation, unique programmable vibration, and the only automated five minute mould change system in the industry set TIGER apart. TIGER customizes its products, services and technical training whether for a mould, parts, or a complete manufacturing plant.

THE APPLICATION

The products manufactured through the **TIGER PS 50 Inter Locking Concrete Machines** are having various kinds of applications as mentioned below;

Masonry

Since the time of the pyramids, concrete masonry products have proven to be versatile, durable and easy to install. Strong, economical and aesthetically pleasing; concrete masonry is recognized worldwide as the ideal building material.

Paving stones

The predecessor to the modern “Paving Stone” (or “Concrete Pavers”) was the cobblestones of ancient Roman roads. These versatile concrete products are used in settings such as parking areas, pools, container loading ports, pedestrian walkways and factories.

Landscape

Landscape products are used for the beautification of public and private areas around the world. Everything from small gardens, to large public spaces and shopping areas.

Hardscape

These products add to the natural or urban beauty of any location with their innovative shapes, split-face designs and large variety of colours.

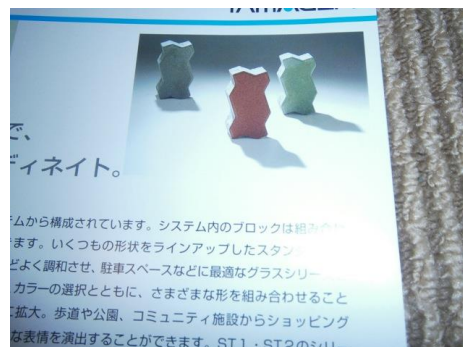
Environmental

“Environmental Products” in our industry refers to a variety of hardscape/landscape products, as well as structural and barrier products, specially designed to have a positive impact on the environment.

Unique applications

Today’s concrete product markets demand more from suppliers of building materials. There are thousands of products and potential products that fit into this group.

The pictures show the various models of concrete blocks manufactured using the **Tiger PS 50 Interlocking Concrete Block Making Machines**.



THE MODEL

PS - 50 Tiger Interlocking Concrete Block Making Machine is the largest paver making unit and these machines are designed from the outset for the production of concrete paving stone machines and are capable of making products as low as 30 mm (1 3/16") or all the way up to 150 mm (6") in height. These machines can reduce the cost of production as much as low and very competitive when compared to the other models available in the market.

Engineered and built for heavy-duty, continuous, dependable, long-life operation, they do not require expensive pits or foundations. The use of a unique vibrating table and head design, make it capable of delivering pavers that meet the most rigorous quality standards in the industry.

This series of machines also includes an industry exclusive feature for a large board-type machine, allowing it to use production steel pallets or "board-type" hardwood or hardwood and plastic production pallets. The built-in Quick Mould Change System is the industry's only available automatic mould change technology that allows changes in less than five (5) minutes.

A unique and innovative mould-change design allows for the mould base to be removed along with the mould and the machine heads. This not only expedites the mould change, but allows for easy access to the machine inner frame, and facilitates maintenance and cleaning of feed box and agitator.



THE SPECIFICATIONS

Available with	PS 50
Off bearing hoisting system	Not available
Rack Loader and Unloader system	Available
Rack transfer systems (CR or RTS)	Available
Pallet transporter systems (PTS)	Available
Single pallet handling systems (SPH)	Available
Cuber Systems	Available
Features	
Vibrator motors - kW	7.5 kW (10 hp) x 4 pcs.
Pump motor - kW	45 kW (60 hp)
Hydraulic pump - Liter Per Minute	141 liters (37.1Gallons)
Oil Cooling Fan/Heat Exchange Motor kW	0.4 kW (0.53 hp)
Hydraulic oil reservoir/Tank - Liters	450 liters (118.42 Gallons)
Recirculating pump motor - kW	2.2 kW (2.9 hp)
Recirculating pump - Liters per minute	138 liters (36.3 Gallons)
Hydraulic system pressure - MPa	11/15 MPa (1595/2175 psi)
Compression head vibration	Standard - Pneumatic - Piston -Type
Capacity	
Steel pallet size	978 x 660 x 12
Steel pallet size	38.5" x 26" x .5"
Useable mold cavity	950 x 640 x 40-150
Useable mold cavity	37.40" x 25.18" x 5.90"
Concrete masonry units per cycle/pallet	
Holland-Stone Pavers - 10 x 20 cm	20
Tri-Hexagon pavers 20 x 20 cm	12
Spanish Adoquin 22 x 24 cm	8
Uni-Stone 11 x 22 cm	20

Cobble Full 15.7 x 22	12
Uni-Décor Std 13 x 22 cm	15
Cobble-Stone 15 x 22 cm	16
Dimensions & Weight	
Weight	16000 kg (35200 lbs)
Machine size (W x H x L) - mm	3010 x 3850 x 7380 3100
Machine size (W x H x L) - inches	118.5" 151.5" x 290.5" 122.04" x

THE FEATURES

TIGER PS-V SERIES have the most advanced features in the industry. These are truly the most innovative and versatile concrete products manufacturing machines in the market. It has features of labour reducing advantages such as automatic mould change systems capable of changing a complete mould in less than five minutes with each. The Agitator, cut-off plate, height pins and stopper can be changed separately with little additional time. These features allow for production changes to make multiple unit in a single shift. A competitive advantage allowing you to bring to market a much wider range of products.

Batching & components

- ❖ TIGER has a solution to your batching needs. From simple main material mix plants, to dual or multiple mix plants (main mix and single or multiple face mixes), to using multiple feeder conveyors and bins for multiple colors and using admixture and color dispensers.
- ❖ One of the secrets of manufacturing top quality concrete products is having sound, clean, and strong raw materials that are properly graded and blended to make the best semi-dry concrete mixture possible.
- ❖ The only way to obtain that is by having in place a sophisticated, yet simple and effective batching system capable of producing consistent raw materials blends to feed our high-quality batch mixers.
- ❖ Certainly mixing is also very important and the durable and reliable RM and DM series mixers, deliver quality concrete to the incredibly diverse series of concrete product machines.
- ❖ However, if the blend supplied to the mixers is poorly compiled, in the wrong proportion, the wrong quantity, or is inconsistent from batch to batch, the end products quality will be adversely affected.
- ❖ That is why a proper capacity high-quality batch plant is essential to having a good concrete products facility that can operate efficiently and consistently produce top quality concrete masonry products.

- ❖ The economical, simple and efficient batching systems are designed in innumerable capacities, sizes and styles.
- ❖ The batching plants are modular in format, easy to assemble, maintain and service, and are made safer because of their simplicity.
- ❖ The batching plants and components are “custom made” which better fits than the standardized “one-size-fits-all” batching systems.
- ❖ The custom made batching easily meets the production needs of and each one is uniquely tailored for the job at hand. Not only do custom designed systems mean a higher long-term return on your investment, but in many occasions they cost less than standardized batching systems.

Colour Mixer



Colour Patterns



DM Series Turbine Mixer

- ❖ The DM line of Tiger semi-dry concrete, turbine-type batch mixers features the best of design for single shaft and bull gear-and-pinion vertical format mixing configuration.
- ❖ Extremely reliable and fast, easy to maintain and operate, this is the most rugged turbine mixer available.
- ❖ These batch mixers make great concrete easily and are the preferred mixer for high strength, dual layer and face mix application, and for high volume uses with short production times.
- ❖ Unlike competitive models, the angles of the blades have been fine-tuned in conjunction with the shaft RPM and turbine rotation to produce semi-dry concrete faster and better than other brands in a smaller volume unit.
- ❖ These mixers are available on a wide variety of sizes and use Ni-Hard abrasion resistant replaceable planetary blades and drum liners.
- ❖ They have hydraulically operated gates and self-lubricating gearing and drive and use high-torque capacity electric motors and drives sized for a specific range of materials volumes and weights.
- ❖ The DM-8 mixer model is especially suitable for use to make face/topping mixes. All these mixers include their own support base.

DM Series Turbine Mixer



RM Series of Ribbon Mixer

- ❖ Tiger RM Series of Ribbon Mixer is made by the best qualified engineers, designers, technicians and assembler at manufacturing and design locations.
- ❖ The standard in our industry, these reliable and durable mixers provide the best value for their cost, producing high-quality concrete and top-of-the-line end products.
- ❖ This model of semi-dry concrete spiral-blade batch mixers also features a well proven easy to maintain and repair, ribbon-type horizontal shaft configuration.
- ❖ Unlike competitive models, the angles of the blades have been fine-tuned to produce high-quality semi-dry concrete faster in a smaller volume unit.
- ❖ A “wet-concrete” model is also available, as are options including a variety of sizes and “hand” configurations.
- ❖ These mixers use Ni-Hard abrasion resistant replaceable drum liners and spiral-shaped blades with pneumatically operated gates and dual-action self-lubricators.
- ❖ They also feature heavy-duty sealed thrust bearings, heavy-duty shafts, high-torque capacity electric motors and drives.
- ❖ They come standard with motor and base, pulley guard and totally enclosed drum. For this series batch mixer, we also offer optional head scrapers and cleaning rings.

RM Series of Ribbon Mixer



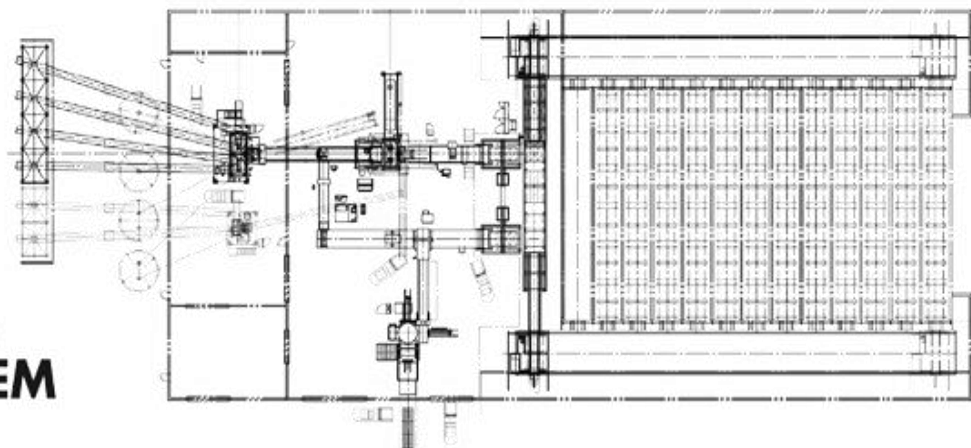
Rack loaders/unloaders

- ❖ Tiger PS 50 is having automatic rack loading and unloading systems to be used in conjunction with fork-lift trucks.
- ❖ This is the lowest cost and easiest rack handling system for smaller facilities or facilities with limited available space.
- ❖ The ARLU series systems are available in a variety of formats, configurations & sizes, they can use single, double or triple bay steel racks.
- ❖ Racks sizes are made to accommodate the larger production capacity of almost all the types and models of Tiger concrete products machines.
- ❖ From single to multiple pallet depth and variable shelf heights, Tiger ARLU systems are versatile and economical.
- ❖ These systems are fast, efficient, easy to operate and easy to maintain.
- ❖ The automatic rack and unloader systems are designed with future upgrades in mind.
- ❖ Right hand and left hand configurations are also available.

Spade loaders/unloaders

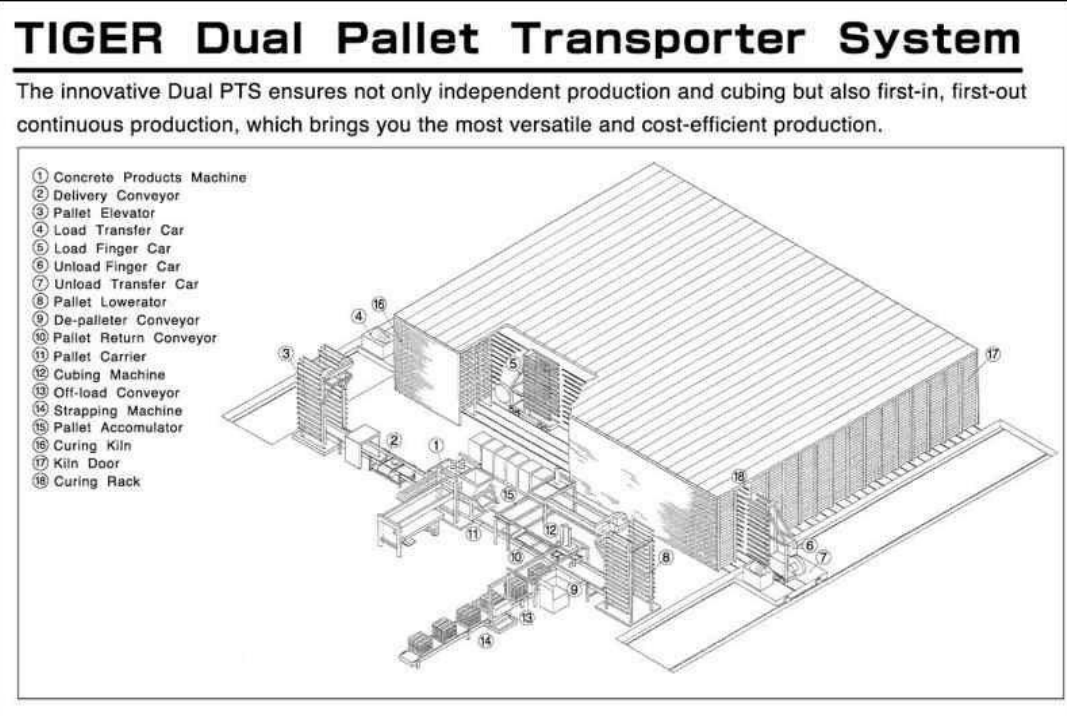
- ❖ Tiger offers a unique high speed automatic spade-type rack loader and unloader that can be used both with fork-lift truck installations and fully automatic rack transfer systems such as Tiger's RT-CR and RTS.
- ❖ The Tiger SPADE RACK LOADER AND UNLOADER system (SRLU) can be manufactured to fit the individual requirements of a variety of Tiger's concrete products machines and competitive models.
- ❖ These units can range in capacity to be able to handle from a three at-a-time to a six at-a-time concrete products machine.
- ❖ The SRLU units from Tiger can be set up to handle from eight (8) and up to twelve (12) shelves/tiers high racks.
- ❖ Steel loading racks can be: two (2), three (3), four (4) and five (5) production pallets deep. Steel loading racks can be two (2), three (3) and four (4) bays in configuration.
- ❖ These units can be set up in a multitude of configurations from Right-Hand to Left-Hand or to mirror images plant configurations.

**DUAL
RT-SYSTEM**



PTS Pallet Transporter Systems

- ❖ The TIGER Pallet Transporter Systems is the highly advanced design, base on the traditional Finger Car and Transfer Car production equipment's.
- ❖ This is an economical, efficient and flexible system that can not only transport production pallet from the wet/uncured side to curing kilns and to the dry/cured side of the handling system but that can also keep up with the pace of high volume concrete products machine of all types and size.
- ❖ The PTS are designed in single and double car configurations to meet specific customer needs. And advance graphic control touch screen interfaces show real-time information on both the operation of equipment and the management of the kiln.
- ❖ A color-coded product map display and control screen tracks the location of up to fourteen individual products in the curing rooms.
- ❖ The finger-car automatic pallet transporter systems are high-speed, high-capacity units designed for large facilities.
- ❖ It uses the proven pallet carrying finger-car on mother-car (base car) and eliminates the use of steel racks.
- ❖ They are designed to operate at higher loads and speeds when using large size product pallets, but are also available for smaller sizes.
- ❖ The systems can be configured for a variety of formats, layouts (machine-side or machine-front) and handedness plus "mirror-image" formats.
- ❖ They can also be adapted to existing plant layouts and for a variety concrete products making machines.
- ❖ These finger-car systems are suitable for the handling of many concrete products and especially for concrete paving stone units.
- ❖ They can be adapted for either First-in/First-out (FIFO) or First-in/Last-out (FILO) formats by using a dual finger-car system or with turntables for 90 to 180 degree opposite side kiln usage.



Pallet Elevator with fork lift



Curing Kiln



THE MOULDS

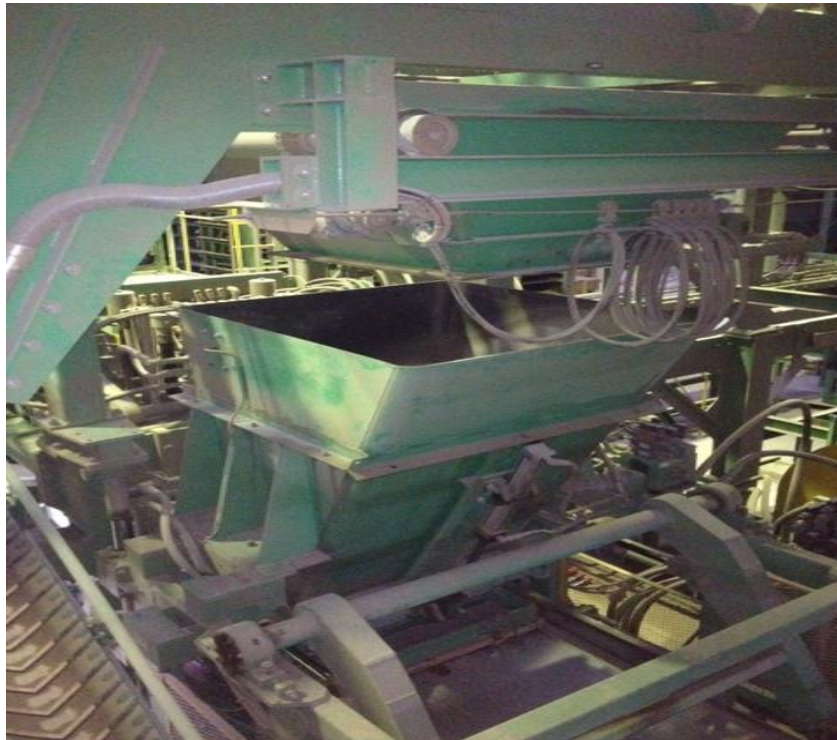
Moulds & mould parts

- ❖ TIGER moulds are made to meet or exceed the highest industry standards.
- ❖ TIGER delivers moulds and parts at a reasonable cost.
- ❖ The overall quality and durability of the moulds are the best it can be.
- ❖ The moulds are available for seven (7) distinct series of concrete products machines. That is 26 models in all.
- ❖ The mould range is very extensive covering tens of thousands of concrete products like common masonry block & brick, paving stone, patio stone, segmental retaining wall products, fencing units, other landscape products, architectural products, antiqued products, specialty and unique applications products, curb-stones, environmental units, various hard-scape products, and many others.
- ❖ The moulds are innovative and versatile, capable of making the highest quality concrete products when paired with a TIGER concrete products machine.
- ❖ The extensive use of special steels/alloys, tight manufacturing tolerances, material hardening heat treatment and other processes such as oil quenching set the moulds apart from others in the industry. Unique mould accessories like Core Pullers, electrically heated de-moulding shoes and movable component moulds are available from TIGER as well.



Production Process

The series of pictures shows the process of production by PS50





TYPICAL AUTOMATED TUMBLING LINE

