



# ORIGINAL IN IRAN SERVICES TO THE GLOBAL

**Aj-2000**

Automatic block Machine Stationary

**Aj-1800**

Automatic block Machine Mobile

**Aj-3000**

Stationary Big Board Block Machine

**Aj-1000**

Building Products Expert



## POWER MACHINE Board-Free Technology **4 HIGHLIGHTS** 2000 1800 3000 1000



# POWER MACHINE



**Frequency Control Technology**

Saving power consumption with 30% - 60% less than other suppliers block machine of same capacity



**Vibration Force 100% Delivery**

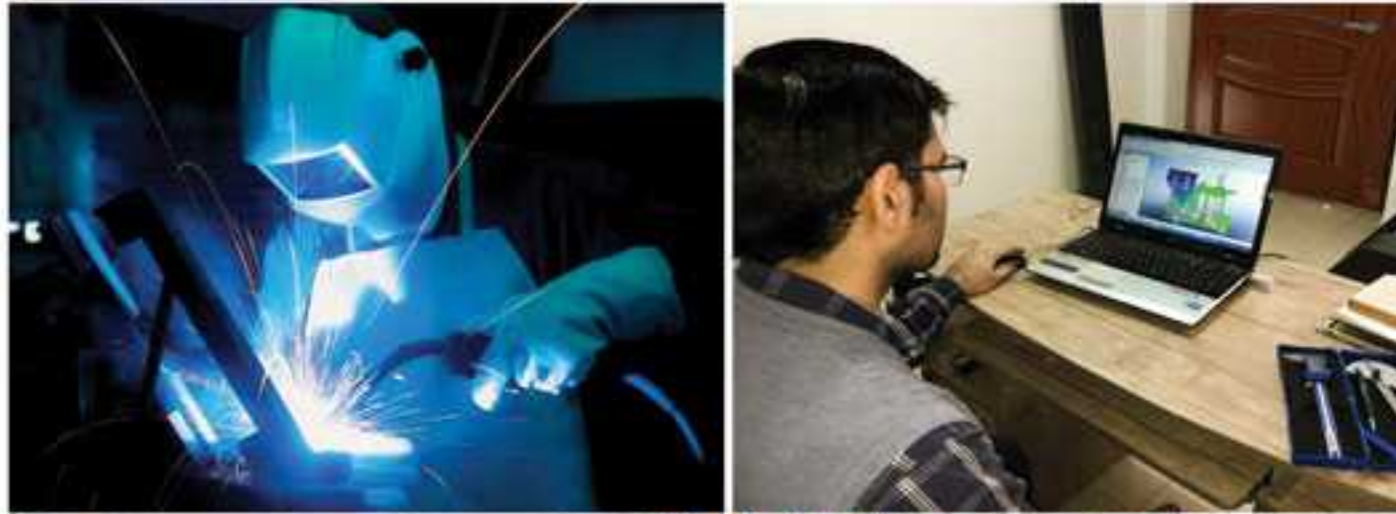
Zero vibration loss caused by pallet, Higher Density and strength

AUTO

**Fully Automatic Control & Production**

Only 4 workers needed for whole production line, Realization of Remote control, Remote maintenance and service





We bring concrete  
■ into any shape

## GETTING BETTER WORK TO OFFER YOU THE BEST...

### COMPANY PROFILE

Power Machine Company has been established and operationalized in 2003. This company takes different perspective compared to other block making companies and has been restructured in performance and has special designing methods. We have achieved high quality and standard products because of having 2 decades of experience and owning three factories and with 30000 pieces of production capacity of different concrete blocks for road making and horticulture including various concrete blocks with different sizes and shapes, producing various curb stones and colored floor covers and with full knowledge on the machine functions in production stage. This company has always been thinking for devising and designing powerful engineering machineries with high speed and accuracy to enable us in producing high quality and standard products with easy function. We started our career in machine manufacturing with such goal. During the recent years, we could have met all our customers' needs designing different models.





# Aj-600

## Manual block Machine Mobile



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### Aj-600 EGG-LAYING BLOCK MAKING MACHINE STRIPS BLOCKS ON CONCRETE FLOOR

A machine featuring high production efficiency, distinctively easy and effortless to operate. The excellent quality of compression together with a fast production cycle enables a smooth, evenly crafted and considerable output of cement blocks, Aj-600 is very strongly built and rugged; its mechanical parts and hydraulic elements exceeding necessities guarantee long life and extreme reliability. Quality production, minimum service and maintenance needs together with rugged; strong built make it the safe choice for the most demanding producers.

#### SPECIFICATIONS

- Weight & Dimension: 2570 kg, 2.25x 2.25 x 1.75 m
- Power: 220-380V; 3 Phases
- Motors: 3 motors tot 8 kW
- Semiautomatic machine equipped with loading bucket
- Double horizontal side vibration and simultaneous hydraulic compression from top
- 5 Control levers for: 1.Mould Loading 2. Compression 3. Stripping 4. Steering 5.Turning
- A 650L Mixing bucket with automatic opening and closure
- Special built-in torsion bar for an always parallel stripping
- 3 Phases Control Panel to operate & protect the components.
- Changeable mould
- Production Rate: 800-1000 blocks/h

#### Aj-600 Technical Details

Features	
Hopper volume	850 l
Loader feeding height max.	2.005 mm
Max. production width	1.240 mm
Max. production depth	600 mm
Min. production height	175 mm
Max. production height	200 mm

Vibration system	
Max. 2 mould vibrators	48 kN
Hydraulics	
System: high pressure circuit	
Operation pressure	250 bar
Aj 600 Standard	Capacity: 12 l/min
Aj 600 Speed & Comfort	Capacity: 14.2 l/min



Manual  
Operation Mode



Steel Mould-changing  
System



Double Vibration  
System



Hydraulic  
System





# Aj-1000

Building Products Expert



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## Aj-1000 The Traveller Production concepts for vertical market segments and architectural products.

Hollows, solids, foundation and chimney blocks – to mention only a few examples. POWER MACHINE model AJ-1000, the ideal concrete block making machine for economical mass production of high quality concrete blocks. Available in semi-and fully automatic execution. Outstanding performance in open area or buildings. Safe handling and well proven design principles guarantee efficient operation of POWER MACHINE model AJ-1000, even still in decades. Different moulds are easily interchangeable. The machine produces concrete elements directly onto the ground, in lines-cycle by cycle. Running wheels of machine are outfitted with Vulkolan coating for protection of concrete floor. Equipped with hydraulic shunting wheel for turning of machine at end of production lines. More than six thousand machines of this type are in operation – worldwide. POWER MACHINE offers for all travellers comprehensive equipment for concrete block handling. Cubers with special clamps are available. Transport of fresh concrete from batching and mixing plant to block machine is preferably made with a forklift equipped with a hopper or with a special concrete loader. Ask POWER MACHINE for the options available.

### Aj-1000 Technical Details

Features		Vibration system	
Hopper volume	1.000 l	Max. 4 mould vibrators	48 kN
Loader feeding height max.	2.005 mm	Max. 2 tamper head vibrators	20 kN
Max. production width	1.240 mm	Hydraulics	
Max. production depth	1.130 mm	System: high pressure circuit	
Min. production height	175 mm	Operation pressure	250 bar
Max. production height	330 mm	Standard	Capacity: 12 l/min
Machine weight		Speed & Comfort	Capacity: 14.2 l/min
With mould and vibrators	ca. 5.500 kg	Electrics	
Machine dimensions		Power consumption with max. nos. of vibrators	18 kW
Total length	2.850 mm	Aj 1.000Standard	Control system: with contactor control
Total height max.	3.000 mm	Aj 1.000Speed & Comfort	Control system: fully automatic controller with dialogue module and visualisation
Total width	2.337 mm		

Technical details are subject to changes – without prior notice. Pictures of equipment shown are examples only. Photos may include optionals as per customer's demand.

### Aj-1000 Examples of products



Manual Operation Mode

Full Automatic Operation Mode

Block Mold Changing System

Intelligent Frequency Control





# Aj-1800

## Automatic block Machine Mobile



We bring concrete  
 ■■■ into any shape

### Aj-1800

One of the most important advantages of this machine is its huge and sturdy chassis that increases lifespan and very strong and high of the device and due to powerful hydrau In most of high production capacity it makes no problem dor system machineries. in sieve phase, the mold fills by sieve movement power using steering. Hydraulic valve work efficiency, and including Pump. Hydraulic has been fixed and the and even chassis bears high pressure in this this defect size of mold got 100mm larger on all sides and the mold to be filled at the same The is that there is a mobile sweep shreds grid in sieve that is moved by a hydro motor that has no on machine and its hydraulic parts and the mold is filled within seconds.

In most of machineries, in sieve phase, the mold fills by sieve movement power using Hydraulic jacks, it reduces work efficiency, and hydraulic system including Pump, Hydraulic steering, Hydraulic valve and even chassis bears high pressure. In this machine, this defect has been fixed and the size of mold got 100mm larger on all sides and the mold to be filled at the same time. The important point is that there is a mobile sweep shreds grid in sieve that is moved by a hydro motor that has no pressure on machine and its hydraulic parts and the mold is filled within 4 seconds.

### Aj-1000 Technical Details

Features		Vibration system	
Hopper volume	2 000 l	Max. 4 mould vibrators	78 kN
Loader feeding height max.	2 005 mm	Max. 2 tamper head vibrators	35 kN
Max. production width	1 240 mm	Hydraulics	
Max. production depth	1 240 mm	System: high pressure circuit	
Min. production height	175 mm	Operation pressure	250 bar
Max. production height	330 mm	Standard	Capacity: 12 l/min
Machine weight		Speed & Comfort	Capacity: 14,2 l/min
With mould and vibrators	ca.10 500 kg	Electrics	
Machine dimensions		Power consumption with max. nos. of vibrators	18 kW
Total length	2 850 mm	Aj 1.800Standard	Control system: with contactor control
Total height max.	3 000 mm	Aj 1.800Speed & Comfort	Control system: fully automatic controller with dialogue module and visualisation
Total width	2 337 mm		

Technical details are subject to changes – without prior notice. Pictures of equipment shown are examples only. Photos may include optionals as per customer's demand.

### Aj-1800



Intelligence  
 Computer System



Mobile  
 Production



Hydraulic  
 System



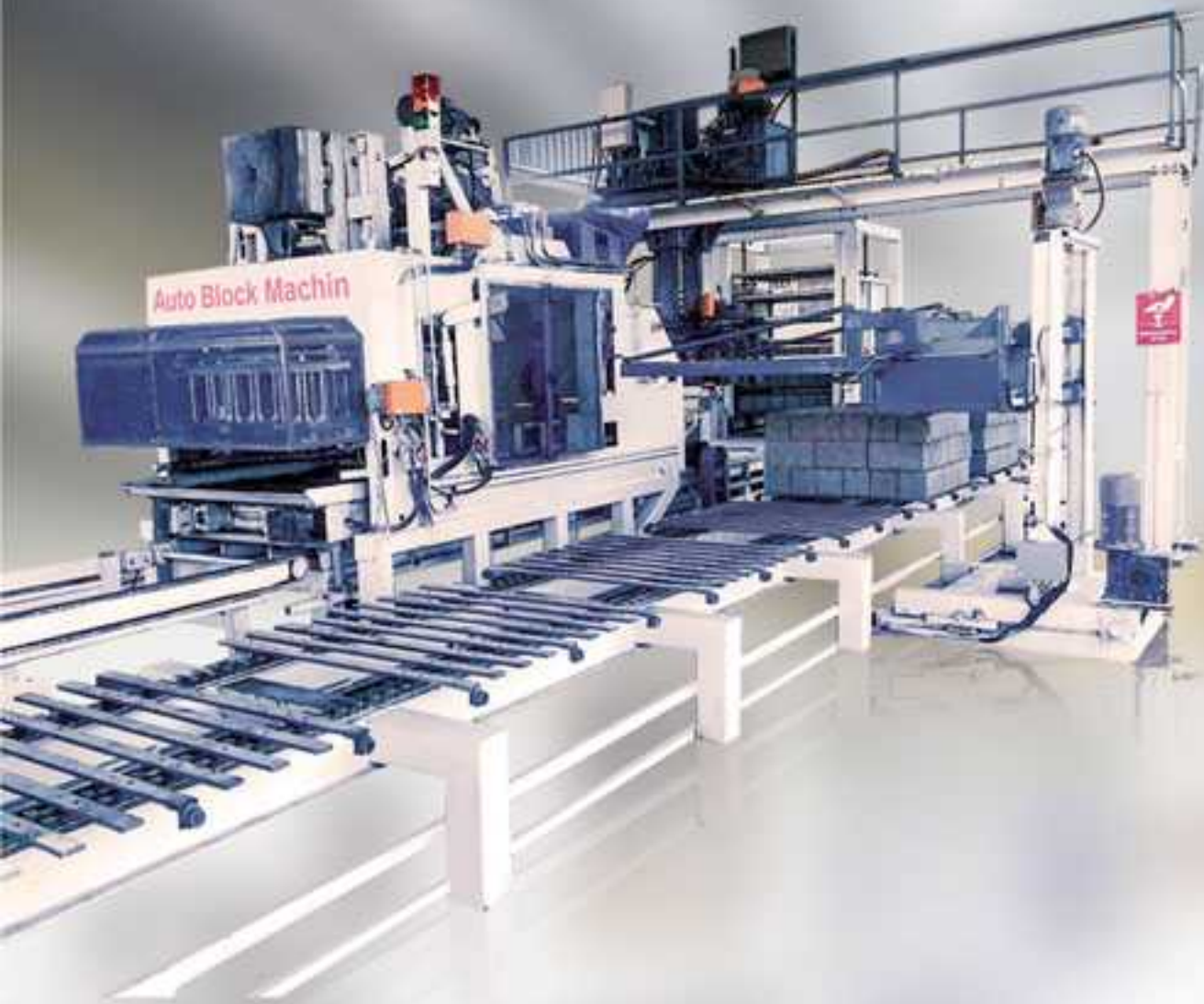
Multifunctional Production  
 Clamping System





# Aj-2000

## Automatic block Machine Stationary



We bring concrete  
■ into any shape

### Aj-2000

Due to its sophisticated and well engineered technology, the xL version is the top model of the block making machines in the market. Decades of experience and continuous further developments have some influence on the technology of this model range. In cooperation with our customers, we especially set great value upon a market adequate definition and implementation of new requirements. For instance, the XL version stands for an especially height accurate production of concrete blocks of all types, short cycle times or highest daily production quantities at optimum production quality. The standard scope of delivery includes among others.

One of the most important advantages of this machine is its huge and sturdy chassis that increases lifespan and very strong and high of the device and due to powerful hydraulic system in most of high production capacity it makes no problem for system machineries. In sieve phase, the mold fills by sieve movement power using steering. Hydraulic valve work efficiency, and including Pump. Hydraulic has been fixed and the chassis bears high pressure in this defect size of mold got 100mm larger on all sides and the mold to be filled at the same time. The is that there is a mobile sweep shreds grid in sieve that is moved by a hydro motor that has no on machine and its hydraulic parts and the mold is filled within seconds.

#### Aj-2000 Technical Details

Features		Vibration system	
Hopper volume	2.000 l	Max. 4 mould vibrators	78 kN
Loader feeding height max.	2.005 mm	Max. 2 tamper head vibrators	35 kN
Max. production width	1.240 mm	Hydraulics	
Max. production depth	1.240 mm	System: high pressure circuit	
Min. production height	175 mm	Operation pressure	250 bar
Max. production height	330 mm	Standard	Capacity: 12 l/min
Machine weight		Speed & Comfort	Capacity: 14,2 l/min
With mould and vibrators	ca.10.500 kg	Electrics	
Machine dimensions		Power consumption with max. nos. of vibrators	18 kW
Total length	2.850 mm	Aj 1.800Standard	Control system: with contactor control
Total height max.	3.000 mm	Aj 1.800Speed & Comfort	Control system: fully automatic controller with dialogue module and visualisation
Total width	2.337 mm		

Technical details are subject to changes – without prior notice. Pictures of equipment shown are examples only. Photos may include optionals as per customer's demand.



Intelligence  
 Design System



Mold, mold-changing  
 System



Hydraulic  
 System



Spreading Feeding  
 Technology





# Aj-3000

## Fully Automatic Stationary Single Pallet Machine



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■ into any shape

### Aj-3000 Fully Automatic Single Pallet Machine

The newly designed high-performance single pallet machine 1500 forms the centrepiece of a state-of-the-art and efficiently working concrete block production. The wide range of production possibilities meets all customer requirements. The 1500 comprises the production of niche products, gardening and landscaping products as well as pavers, kerbstones and bricks.

In addition to a high quality and productivity, our engineers put special focus on guaranteeing a low-maintenance and trouble-free production process. Owing to the continuous use of screw fittings, all wear parts can be easily exchanged within shortest time. Based on the screwable design of the vibration table, the motor cross beam and the frame side parts, this machine is unique on the market as it adapts to the customer's production conditions.

An automatic quick change system for moulds, various Colormix equipment and other special equipment as well as tamper head cleaning devices complete our delivery programme.

Moreover, the plant is equipped with a revolutionary control and diagnostic system which provides an all-round support for the machine operator and therefore always guarantees an efficient production.

#### Aj-3000 Technical Details

##### Pallet Size 1400mm x 1200mm

Product	Dimensions in mm (LxWxH)	Number of Products/Pallet	Cycle Time per Pallet in Sec.	Number of Products/Hour	Number of Products/8 Hours
Pavers without Facing Layer	200x100x60	60	11	354m <sup>2</sup>	2,830m <sup>2</sup>
Pavers with Facing Layer	200x100x60	60	14	278m <sup>2</sup>	2,220m <sup>2</sup>
Hollow Blocks	400x200x200	15	15	3,240 pcs.	25,920 pcs.

The specified production rates are calculated with an efficiency of 90% and depend on the concrete mix and the plant equipment.

#### Products

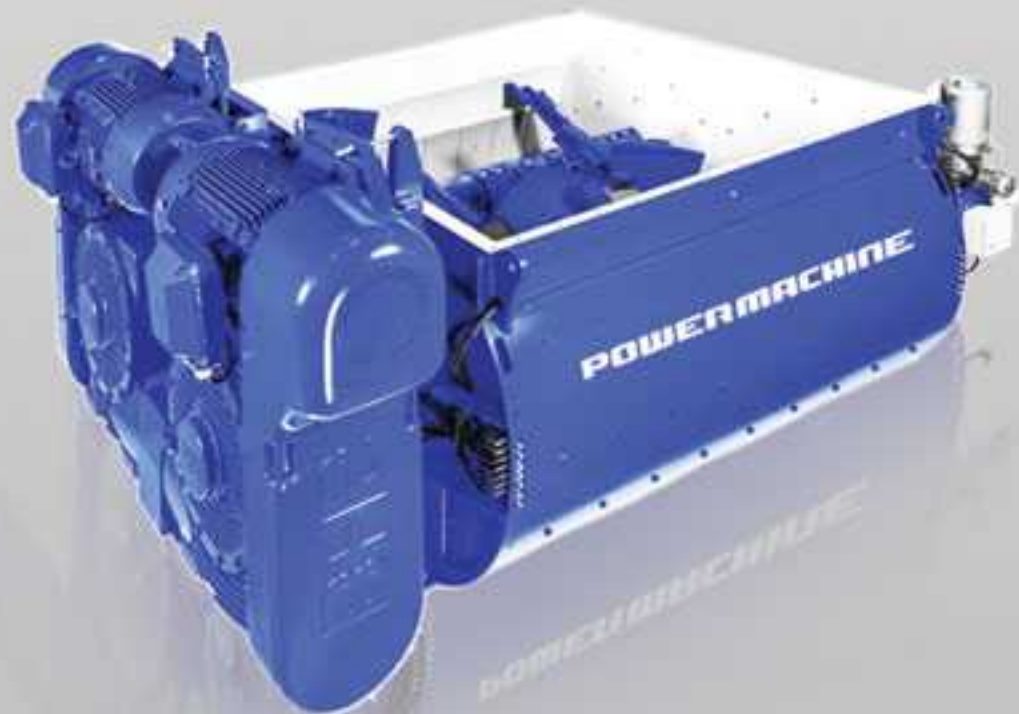






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## BATCHING SYSTEM FOR BLOCK MACHINE



### Twin-shaft batch mixer Power Machine

#### Twin-shaft batch mixer

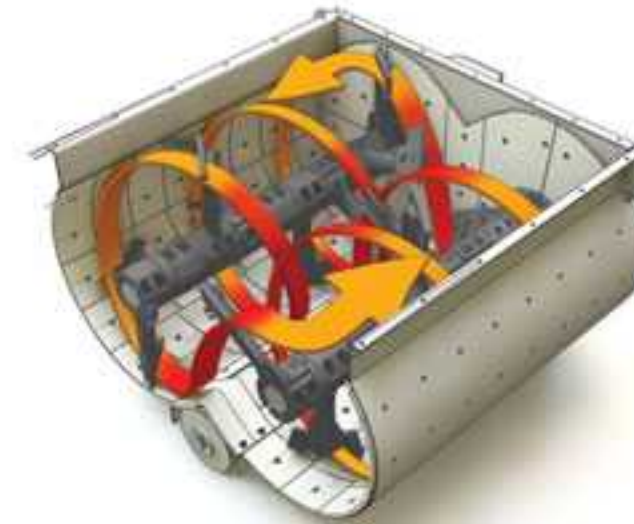
The benchmark in mixing technology

Three-dimensional mixing with the POWER MACHINE twin-shaft batch mixer

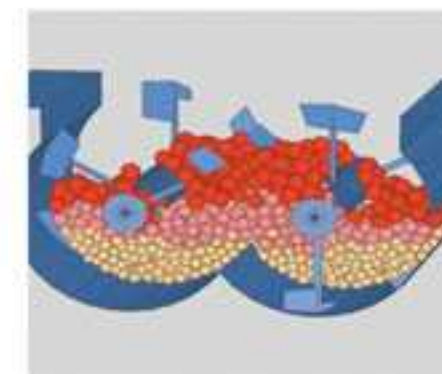
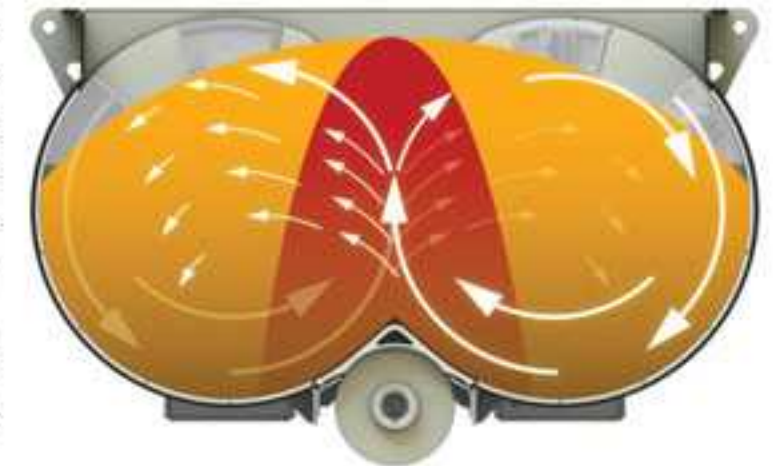
Graphic shows the three-dimensional mixing concept of the twin-shaft batch mixer

Our twin-shaft batch mixer rapidly produces mixtures with consistently high levels of homogeneity. It is a well-proven, highly reliable solution for industrial mixing processes (especially mixing of minerals) with medium to high output requirements. The machine is a classic compulsory mixer.

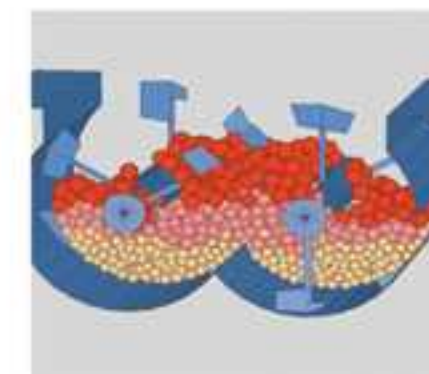
The POWER MACHINE twin-shaft batch mixer has been successfully employed around the world for decades in the concrete industry. But this mixer has also proven to be an outstanding solution for numerous other applications. Our customers benefit from this wealth of experience. They receive a product that is well-proven, highly cost-effective and reflects the state of the art.



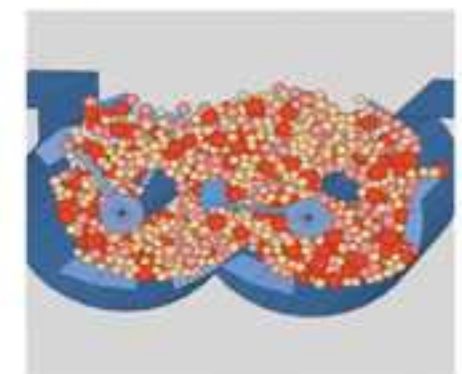
The twin-shaft batch mixer moves the entire mixture in a three-dimensional spiral motion. There is also an intense exchange of materials in the turbulent zone where the two mixing cycles overlap. The energy applied is optimally converted into intense relative movements of the entire mixture. Thanks to the optimized design and arrangement of the mixing tools, you will achieve consistently outstanding mixture homogeneity batch by batch, with very short mixing cycles. The graphics below use a realistic DEM simulation to show the development of mixture homogeneity during the mixing process in a BHS twin-shaft batch mixer.



Mixture consisting of three different materials at the beginning of the mixing process



Mixture homogeneity after 6 seconds of mixing



Mixture homogeneity after 12 seconds of mixing



Making the most quality molds with the most advanced technology



PROJECT CASE

