







### **COMPANY PROFILE**

Sogemi was founded in 1968.

It's been more than 45 years since Sogemi started operating in the market of chemical bonded sand machines and plants, also known as "NO BAKE", and in rotary melting furnaces for cast iron by means of oxy-combustion. We are one of the leading companies on the market with a strong presence in Italy and in the international market.

Our mission has been continually characterized by the pursuit of specific targets:

- development of new technologies with special attention to reclamation and recycling;
   costs reduction and environmental respect;
- development of industrial automation solutions with complete automated moulding lines.
- attention to issues related to environmental ecology in compliance with current regulations.

These principles have always guided the work of Sogemi.

Nowadays, foundries, as well as every modern industrial sector, have to reach a sustainable development, which means that what in the past was considered just a cost, like exhausted sand and many other materials destined to the dump, has to be reclaimed for several reasons:

- cost of materials;
- environmental regulation;
- respect for the environment.

Every material that can be reclaimed can be reused and Sogemi has been doing this since 1968.

### **OUR PRODUCTION**

#### **Continous Mixers**

Pivotal Mixers (1-60 t/h) Articulated Mixers (1-100 t/h)

### **Mould Handling**

Compaction tables
Moulding loop
Carousel Loop
Pins-stripping station
Painting station
Manipulator
Chain Manipulator
Pouring&cooling lines

### **Sand Reclamation**

Shake out
Pre-regenerator shake out
Mechanical reclamation Gamma Mill
Mechanical reclamation Gamma Mill no pit
Cooler /Classifier
Pressure vessels (Dense Phase)
Thermal reclamation
Thermo-mechanical reclamation Gamma-sil
for sand bonded with sodium silcate
Chromite separation
Filters

### **Rotary Furnace**

Rotary furnace with oxy-combustion for cast iron



Mobile Mixer RNK on Truck



Sand Thermal Regeneration Plant - Simplex 1000 E



Mould Manipolator

### **CONTINUOUS MIXERS**



Pivoting Mixer 10 ton/h and compaction



Mixer 30 ton/h with adjustable sand outlet level



Mixer 40 ton/h table



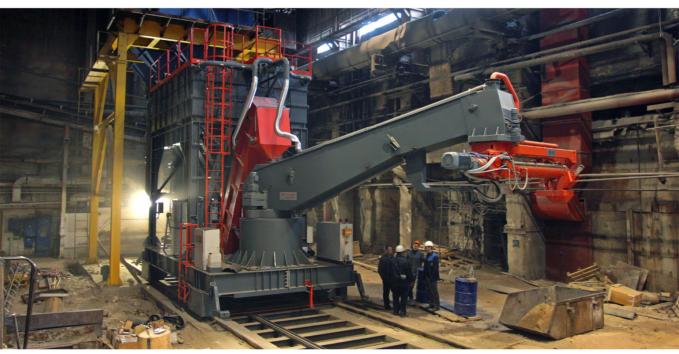


Mixer 20 ton/h and compaction table

### **Continous Mixers**

- Pivoting Mixer
- Articulated Mixer
- Mobile Mixer on truck
- Production range 1- 100 t/h
- Outlet sand with variable height
- Stainless steel liners inside
- Mixing arm open book type
- Inhibitor system for cleaning
- Pneumathic gate for the first sand homogenization

Mobile Mixer on truck 60 ton/h



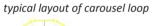
## **MOLDING LOOP**

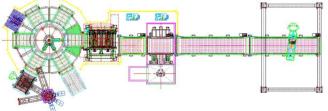




Fully automatic molding lines, for flasks and flaskless, with software supervision for production control

## **CAROUSEL LOOP**





An alternative moulding loop with low requirement of space



## **PINS STRIPPING STATION**





An efficient semi-automatic solution for stripping medium and big flasks

Stripping station for flask of 10 tons loading

# **PAINTING STATION**

Different solutions for painting flasks and flaskless...







### **MANIPULATOR**



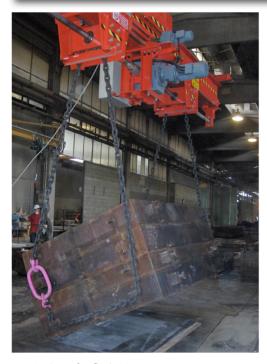


Manipulator for mould

Manipulator for mould 3 ton

Electric and hydraulic manipulator for box-less moulds with different dimensions and different weight 250kg/7ton

## **CHAIN MANIPULATOR**



Manipulator for flask 20 ton



Manipulator for flask 10 ton

A safe way to rotate and close the flask: manipulator for flasks with self balance and remote control For flask of 1- 40 ton

## **COOLING AND POURING LINES**





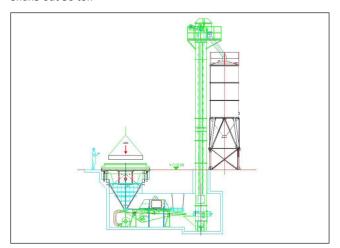
Automatic pouring and cooling lines with tracking sofware to control the cooling time

## **SHAKE OUT & PRE-REGENERATOR SHAKE-OUT**

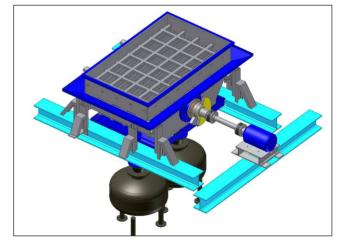
Loading capacity for singular unit up to 30 ton Loading capacity multiple unit connected up to 120 ton



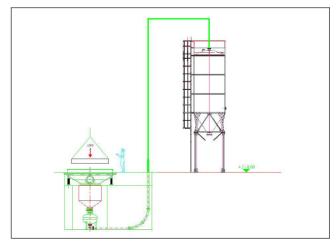
Shake-out 50 ton



Typical layout shake-out



Shake-out pre-regenerator



Typical layout pre-regenerator shake-out

### SAND MECHANICAL RECLAMATION

#### **GAMMA MILL**



Mechanical Reclamation 20 ton/h

Production range: 6 t/h - 30 t/h. Efficient reclamation of sand, by means of grain-to-grain attrition. The metallic particles can be easily discharged by means of the opening door placed in the back part of the machine.

Mechanical Reclamation 10 t/h

# GAMMA MILL NO PIT



An efficient solution which combines together shake-out and mechanical reclamation. No requirement of pit.

Shake-out and Mechanical Reclamation 8 ton/h



### SAND THERMAL RECLAMATION







Thermal reclamation 5 ton/h



Thermal reclamation 2 ton/h

Simplex Model: Capacity from 500 kg/h to 6 ton/h • Heat exchange recovery between hot sand and fluidization air, with the lowest consumption of energy for thermal reclamation on the market.

### **RECLAMATION FOR SAND WITH SODIUM SILICATE**



#### Gammasil model

Thermo-mechanical treatment to reclaim sand bonded with sodium silicate and a liquid hardener: high efficiency reclamation up to 95% of the sand.

Gamma Sil capacity 4 ton/h



## **CHROMITE SEPARATION FROM SILICA SAND**

Capacity from 6 ton/h – 10 ton/h
Magnetic and gravimetric treatment. Perfect separation of chromite from silica sand.
After treatment, pure chromite with silica content < 2%.

Chromite separation 6 ton/h

## **ROTARY FURNACES WITH OXY-COMBUSTION FOR CAST IRON**



Rotary Furnaces 20 ton



Oxy-Combustion Rotary Melting Furnaces with a capacity from 3 to 25 ton. A clean technology & low energy requirement to melt cast iron, by means of oxygen and natural gas.



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