

THE MOULDING SAND CONTROL...

Cooler-mixers

# MAXCOOL



## ■ ■ The Maxcool cooler mixers

This is a new concept in which both mixer and cooler are no longer 2 distinctives machines but only one single unit.

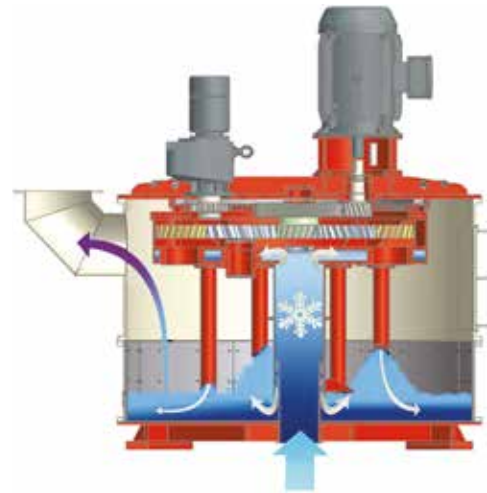
This is an extension to our ROTOMAX mixer.

By comparison to our standard mixers, we have added a diffuser on the tank center, the air injection pipes next to the tools and a centrifugal fan with regulated flow.

As this is a discontinuous machine, all parameters are measured before the start of cycle ( sand temperature, air temperature, humidity, weight). From these properties but also from the results of previous cycles, we calculate with accuracy the water quantity and the needed time for cooling.

Moreover, to avoid taking along the fines (Bentonite/Coal Dust) with the flow of air, the sand is first humidified (moisturized) before opening the air entry.

In opposition to continuous coolers, the cycle is accurately adapted to the cooling requirements.



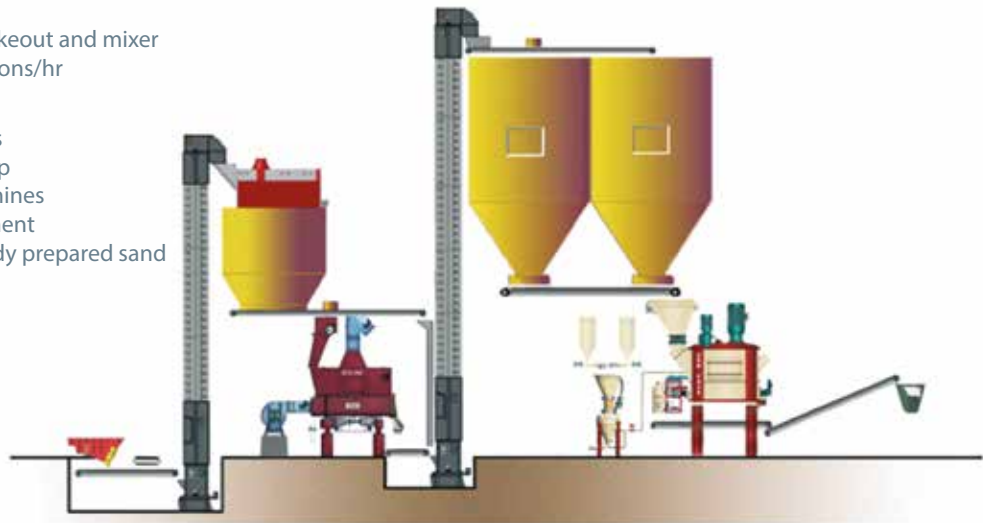
### A new concept

- Weighing of sand before filling-up,
- Measure of humidity and sand temperature before filling-up,
- Calculation of Bentonite and carbon black requirements,
- Sand temperature measure before introduction into the mixer,
- Air temperature measure at cooler exit,
- Sand temperature measure at mixer exit.

### STANDARD SAND PLANT with distinctive RTM mixer and cooler

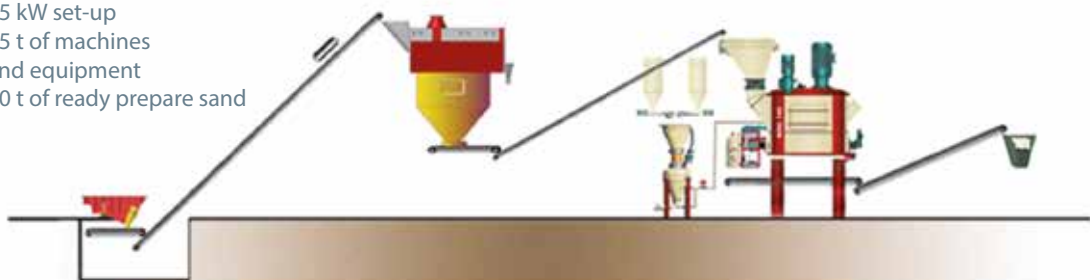
Between shakeout and mixer  
Capacity 50 tons/hr

- 11 engines
- 10 sand falls
- 75 kW set-up
- 60 t of machines and equipment
- 100 t of ready prepared sand

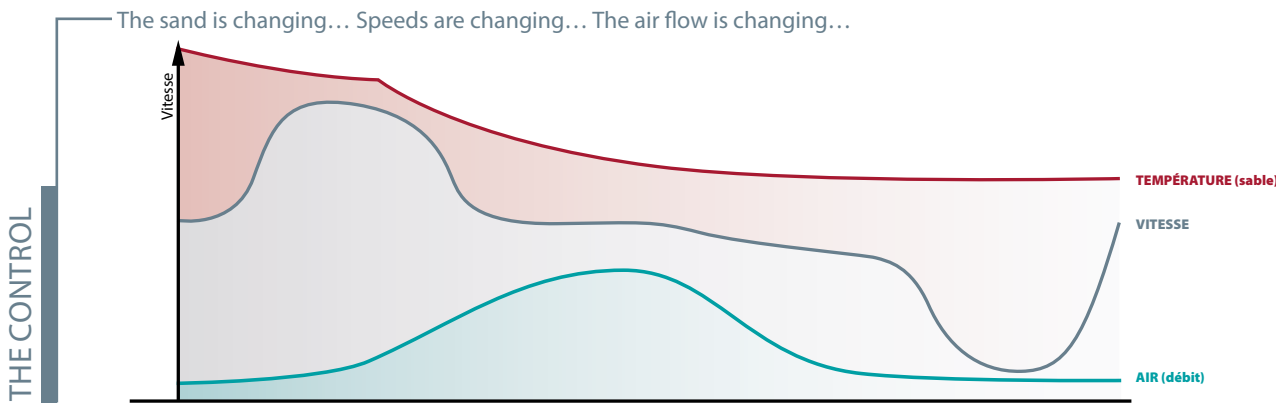


### COMPACT SAND PLANT with MXC cooler mixer

- 6 engines
- 5 sand falls
- 15 kW set-up
- 15 t of machines and equipment
- 30 t of ready prepare sand



## Two real innovations : THE SPEED VARIATION AND THE FLOW VARIATION



Tools speed

THE FEATURE



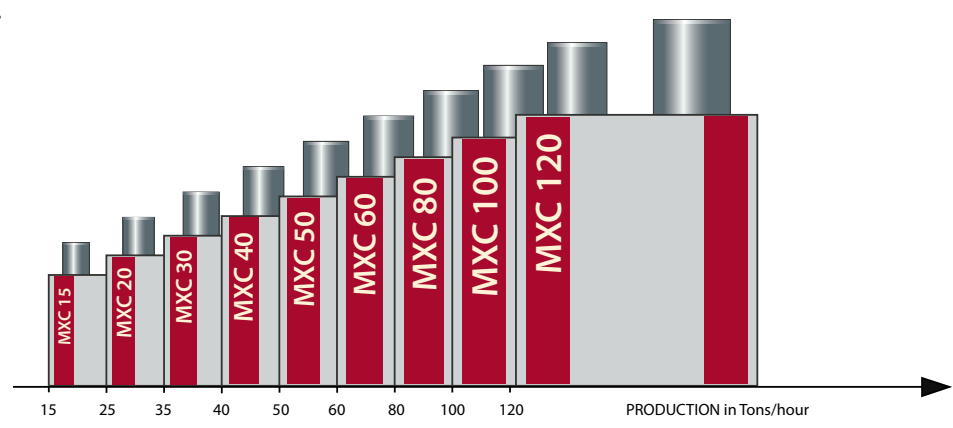
### Advantages

The installations in use in steel, iron, aluminium and bronze foundries give excellent results and provide the following advantages :

- **Two functions** mixer and cooler in one single unit;
- **Simplification** of sand plant ;
- Less electricity needed leading to savings on power and on consumed energy ;
- Better **mixing efficiency** leading to a decrease in binders consumption ;
- Clear **sand quality improvement** at flowability and permeability level ;
- **Easier knockout of mould properties** and **decreased water quantity needs**.

## Technical features

THE RANGE



| Type    | Capacity (kg) | Maxi air flow(T/h) | Nb of Tools | P. Tools (kW) | P. Manège (kW) | P. Wind (kW) | P. Total (kW) | Ht Tank (mm) | Ø Tank (mm) | Ht Sand (mm) |
|---------|---------------|--------------------|-------------|---------------|----------------|--------------|---------------|--------------|-------------|--------------|
| MXC 15  | 750           | 15                 | 2           | 37            | 15             | 11           | 64,5          | 1525         | 1600        | 373          |
| MXC 20  | 1000          | 20                 | 2           | 45            | 15             | 15           | 77,5          | 1650         | 1600        | 497          |
| MXC 30  | 1500          | 30                 | 3           | 90            | 18,5           | 18,5         | 128,5         | 1700         | 2000        | 477          |
| MXC 40  | 2000          | 40                 | 3           | 110           | 22             | 22           | 155,5         | 1750         | 2200        | 526          |
| MXC 50  | 2500          | 50                 | 3           | 160           | 30             | 30           | 222           | 1875         | 2400        | 553          |
| MXC 60  | 3000          | 60                 | 3           | 200           | 37             | 37           | 276           | 2040         | 2600        | 565          |
| MXC 80  | 4000          | 80                 | 4           | 250           | 45             | 45           | 343           | 2055         | 2800        | 649          |
| MXC 100 | 5000          | 100                | 4           | 315           | 55             | 55           | 428           | 2280         | 3100        | 662          |
| MXC 120 | 6000          | 120                | 4           | 400           | 75             | 75           | 553           | 2320         | 3300        | 701          |

## ■ Reaching an optimal assembling

**In major cases, the ROTOMAX mixing is to be completed with a RTC 107 ROTOCONTROL.**

The interactive functioning of both machines produces an homogeneous and constant sand quality. Indeed, the association of ROTOMAX with ROTOCONTROL RTC 107 results in a permanent control of additives quantities as well as the water quantity at each cycle.

This solution enables the supervision of the functioning's PC's assembling thanks to a specific computer developed by SCOVAL which regulates and monitors the sand parameters set such as speeds and mixing times, compactibility and compression strength values.

Any incidents and maintenance operations are classified within the machine historical.

**At all time the ROTOMAX is able to manufacture the best quality of your sand.**

Besides, in order to improve your QUALITY process, the wholeness of datas is automatically recorded and readable under EXCEL program. All resulting measures, corrections made, dates, times, cycle numbers, events, defects,...are displayed and available for consultation in real time.



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