



RELEASE AGENT SPRAYING SYSTEMS
FOR THE CONCRETE INDUSTRY

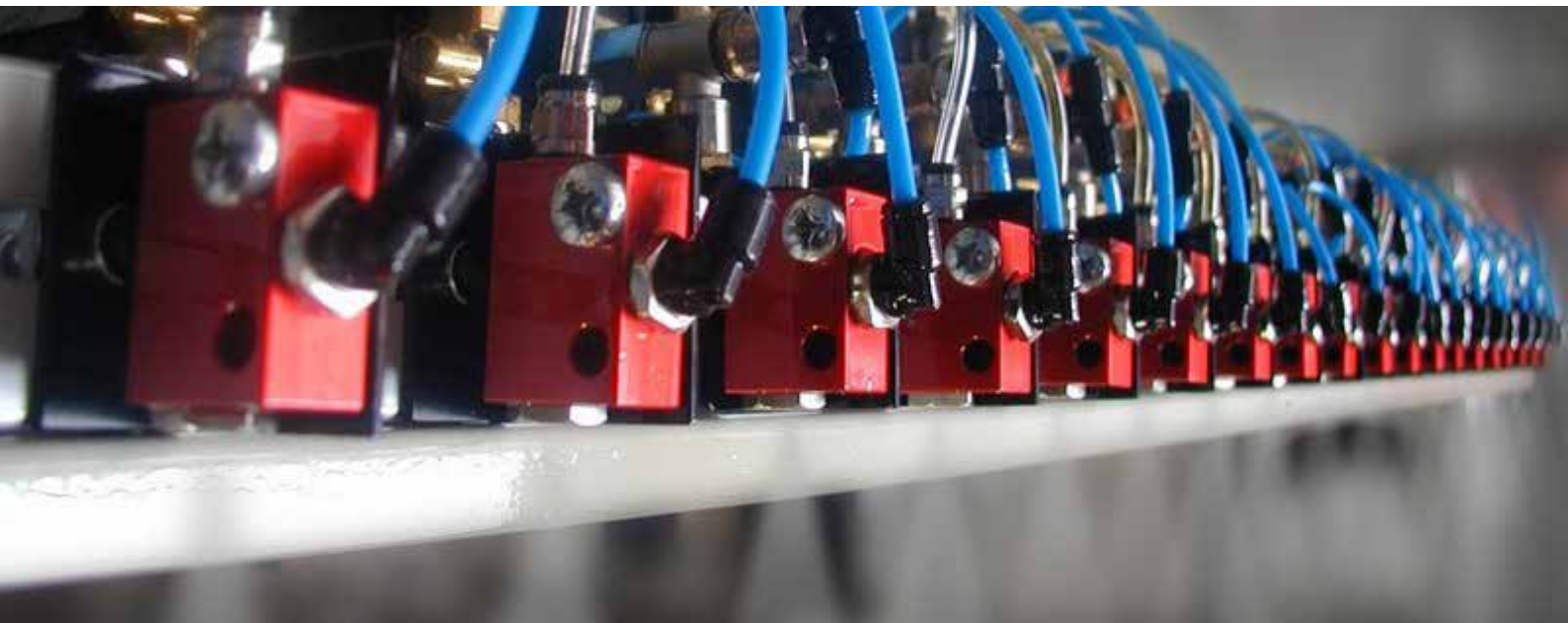


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Superior Spraying Technology

SUPERIOR SPRAYING TECHNOLOGY



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www.wouters-tecnolub.com



WOUTERS TECNOLUB

Wouters-Tecnolub

In 1926, Henri Wouters Wouters founded the Workshops. Working alone, he then manufactured parts subcontracted for Air Liquide Seraing. The company grows and diversifies.

In 1979, Jean-Marc Wouters, enters the company of which he became manager in 1986. The number is then a dozen people. The passage of the 2000, S.A. ESTABLISHMENTS Wouters is ISO 9000 certified. The quality of its organization and its products enables it to obtain the status of "European Provider" for Air Liquide.

TECNOLUB was created in 1988 by Blaise Raymond. This is initially a lubricant sales office.

In 1989, TECNOLUB develops its first micro-lubrication systems. This emerging technology continues to evolve in the next decade and the fields of application are increasing: cutting, milling, turning, stamping, rolling, plating layer with precisely controlled weight ...

TECNOLUB reputation grows. In 2006, AIRBUS and BOEING command their first micro-lubrication systems. Raymond Blaise unfortunately do not have time to savor his success, he died on 27 October 2008.

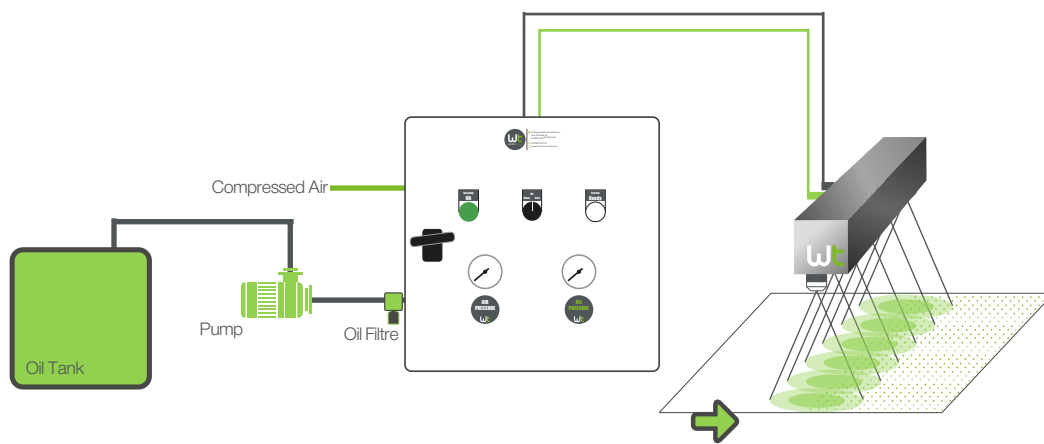
In 2013, convinced of the mutual interest of such an operation, the ESTABLISHMENTS WOUTERS integrate the activities of TECNOLUB Studies Office in their service offering to become WOUTERS-TECNOLUB.

The company now employs about fifteen people.

Our spraying system is driven to control the liquid flow rate according to your production needs. The flow will be constant during the whole process.

With traditional spraying systems using airless high pressure nozzles, you will use way too much liquid while this will also generate mist and pollution.

Our low pressure spraying technology offers an accurate spray control that allows you to reduce easily the sprayed liquid to the minimum quantity that your production process requires.



Hydropneumatic Cabinet



Hydropneumatic control cabinet including:

- o Manual setting of the release agent pressure
- o Manual setting of the spraying air pressure
- o Spray Control Solenoid valve
- o Pilote controlled valve

- On the front panel of the cabinet:
- Air pressure and oil pressure gauges
 - Manual switch : on / off / auto
 - White LED ('automatic operation')
 - Green LED (ongoing spraying)

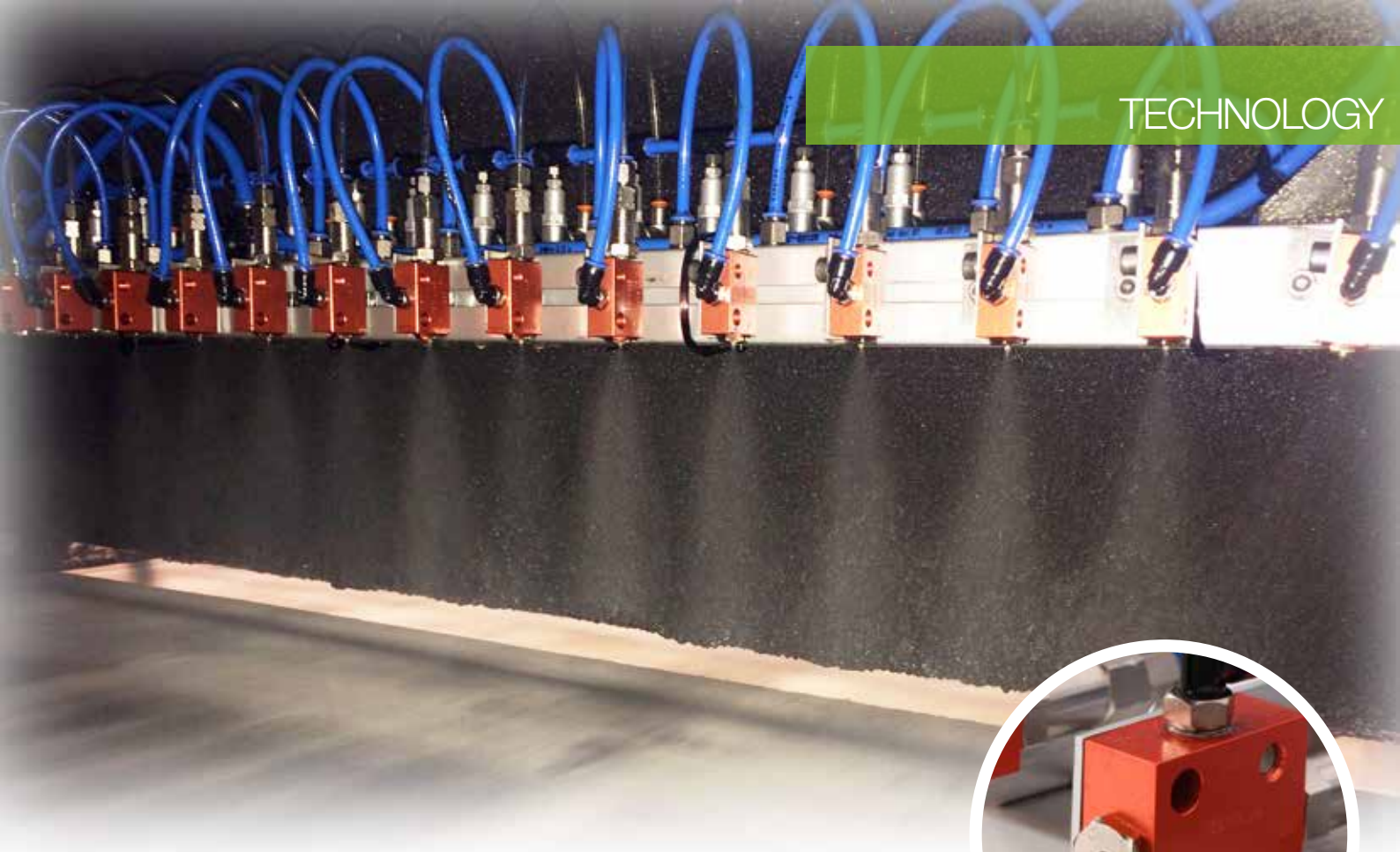
Spray Ramp

Depending the quantity of oil that has to be applied, the speed of the production line and the viscosity of the oil, our engineering department will calculate the right amount of nozzles.

All our SB35 nozzles are equipped with flow regulators and controlled pneumatic valves.



Rampe de pulvérisation



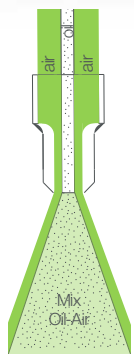
Coaxial Technology

The oil and atomizing air arrive by separate circuits to the spraying point.

The air / oil is mixed at the exit of the nozzles (coaxial system).

The oil micro-droplets are pulled out by the airflow and remain locked into the airflow to prevent any oil mist effect.

This technology provides a reactive and perfect spraying accuracy.

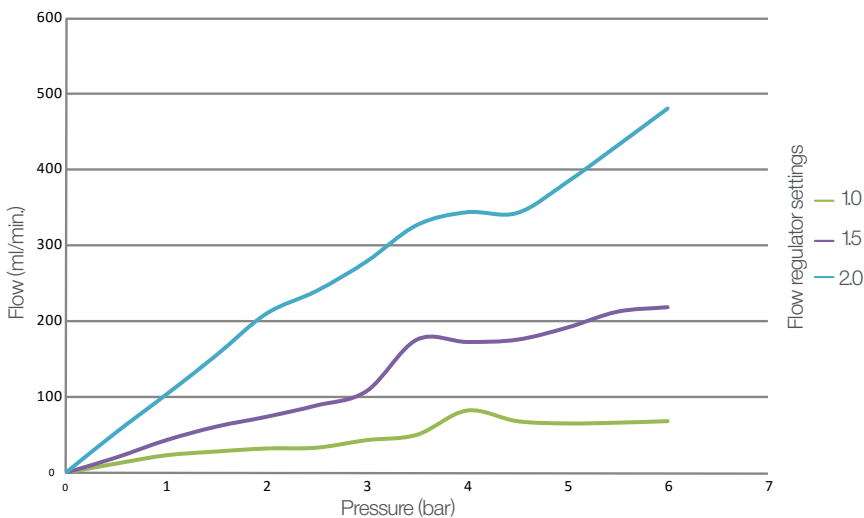


Easy change of the flow rate

Changing the spraying pressure with our control unit will adjust directly the quantity of oil applied. (from 10 to 200 gr/m²).

By changing the air pressure in the control cabinet, you will adapt the size of the oil droplets.

Spraying flow rate chart for a SB35 Nozzle
(calculation done for 10 viscosity)



Oil pressure increased →

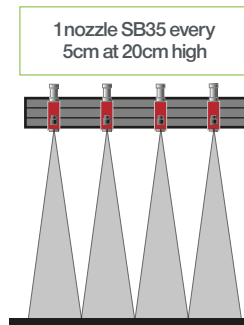
OILING OR NOT OILING ?



Oiling boards allows to considerably increase their lifetime. Every boards manufacturers recommend or require customers to oil the boards to be guaranteed. This lifetime can vary from one to two in case of a high-performance oiling.

We have developed specific low-pressure spray solutions for each type of boards/molds that offer many avatages. Furthermore the release capacity:

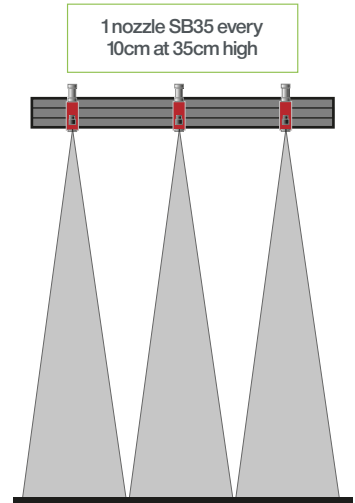
- **Wooden boards** : the oil/water emulsion sprayed tightens pores/wood fibers and creates a protective layer which preserves the board from abrasion
Given the small amount sprayed, no swelling effect
- **Metal Plates** : spraying oil protects the boards against rust and abrasion and reduces the effects of vibration (dust and noise)
- **Composite Plates** : spraying oil protects the boards against abrasion and reduces the effects of vibration



Boards speed : 200mm/sec

Uniform coating
Small droplets

Oil applied :
from 10 to 80gr/m²
(+/- 10 gr)



Boards speed : 200mm/sec

Coating less uniform
Bigger droplets

Oil applied :
from 15 to 60gr/m²
(+/- 20 gr)

Boards without oiling



**BOARDS
LIFETIME
INCREASED
20 TO 60%**

SAVINGS BY OILING BOARDS

	Soft wooden boards	Hard wooden boards	Steel boards	Composite boards
Boards lifetime increase	30-45%	20-30%	20-30%	30-60%
Yearly savings <small>(calculation based on 4500 boards 140*110cm)</small>	8.800€	5.400€	5.900€	14.300€



CUSTOM SOLUTIONS
FOR THE CONCRETE INDUSTRY

The advantages of the micro-spraying technology are multiple :

Economic
 Huge savings on oil purchases (30 to 70% reduction - very fast return on investment)
 Molds lifetime extension
 Increased productivity (better quality of products - reduction of production waste)

Ecological
 Improvement of the environment and working conditions (no oil mist or oil pollution)
 Reduction of oil pollution risks
 Reduction of cleaning operations (less time, less products, less energy)

Technical
 Better products quality (no oil pollution in concrete)
 Inexpensive installation and service
 Perfect oiling uniformity of plates / molds (no rust - no adhesion)
 Instant reactivity spray (no oil waste)
 Easy implementation into your production line

**Oil savings
Up to 70%**



Return on investments calculation

Case of ROI calculation based on realized project.
 Replacement of an airless high pressure oiling system (4 large spray gun nozzles) by our low pressure spraying system.

Production specifications

Boards sizes : 140cm * 110 cm
 Production : 1500 boards/day
 Shift/day : 1

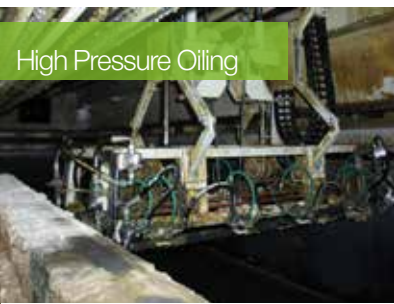
Wouters-Tecnolub system specifications

Amount of nozzles : 14 - Oil applied : 20gr/m²
System price : 5.546€
(excl. VAT and installation)

Before	After
Oil consumption/board : 0.057 l.	Oil consumption/board : 0.035l.
Oil consumption/year : 17.000 l.	Oil consumption/year : 10.440 l.
	Oil savings : 39%

Return on investments : 9 mois
Savings/year : 8.855 €

BENEFITS



WHY CHOSING A LOW PRESSURE WOUTERS-TECNOLUB SPRAYING SYSTEM ?

	High Pressure Oiling System	Brush Oiling System	Manual Spraying Oiling System	Manual Oiling System	Wouters Tecnolub Oiling System
Easy adjustment of the quantity of oil applied	-	-	-	-	✓
Oil uniform coating	✓	-	-	-	✓
Clean working environment (no oil pollution/no oil istle)	-	-	-	✓	✓
Oil savings vs Wouters Tecnolub Spraying system	40-50%	30-40%	60-70%	50-60%	

SUPERIOR SPRAYING TECHNOLOGY



CONCRETE BLOCKS



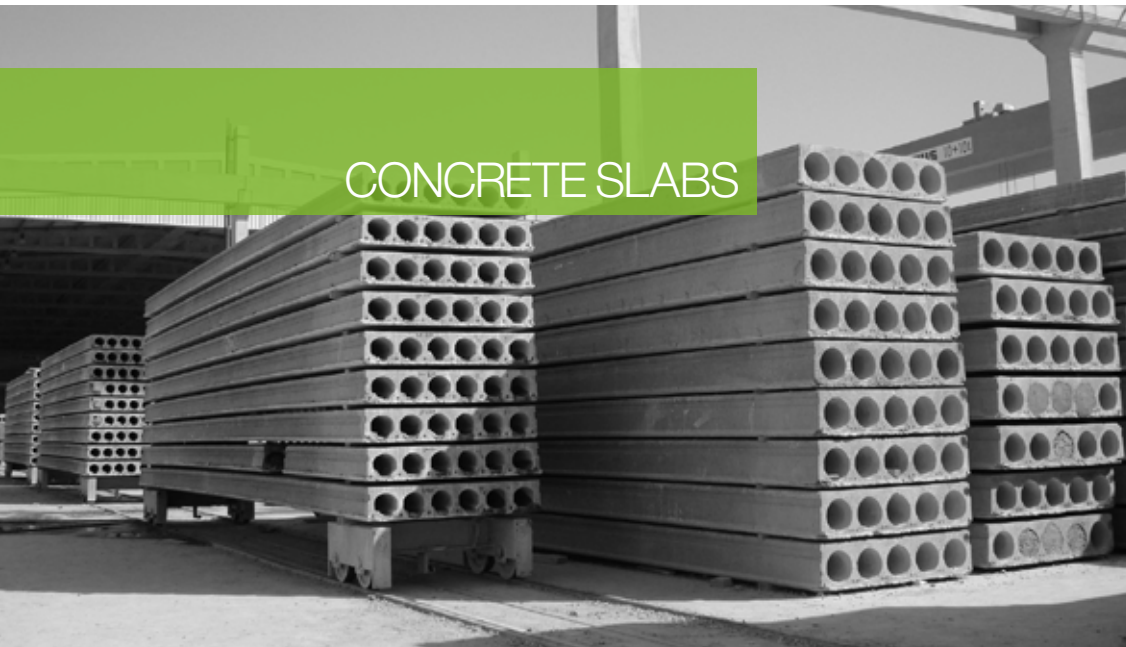
Spraying ramp for a concrete blocks production line (wooden boards or steel boards)

One ramp with SB35 nozzles is used to spray the oil on the metal sheet :

- distance ramp-mold : 35cm
- mold speed : 200mm/sec
- 1 nozzle every 10cm
- oil pressure : 0.5 bar - air pressure : 0.5 bar
- quantity of oil applied : 25gr./m² (+/- 10gr.)



CONCRETE SLABS



Spraying ramp for concrete slabs production line

One ramp with SB35 nozzles is used to spray the oil on the mold:

- distance ramp-mold : 25cm
- mold speed : 200mm/sec
- 1 nozzle every 7.5cm + 2 nozzles for the corners f the molds
- oil pressure : 0.8 bar - air pressure : 0.7 bar
- oil applied : 35gr./m² (+/- 10gr.)



CONCRETE PAVING BLOCKS



Release agent spraying on metal boards or emulsion on wooden boards

One ramp with SB35 nozzles :

- distance ramp-mold : 35cm
- mold speed : 200mm/sec
- 1 nozzle every 10cm
- oil pressure : 0.5 bar - air pressure : 0.5 bar
- quantity of oil applied : 25gr./m² (+/- 10gr.)

Repelant agent spraying on pavings blocks

One ramp with SB35 nozzles :

- distance ramp-mold : 20cm
- boards speed : 200mm/sec
- 1 nozzle every 5cm
- liquid pressure : 1.2 bar - air pressure : 1 bar
- quantity of liquid applied : 60gr./m² (+/- 10gr.)
- automatic flushing system
- special membrane pump

Protective agent spraying



Automatic Flushing System

- Rinsing cycles management by PLC
- Production shutdown automatic management
- Refilling cycles management



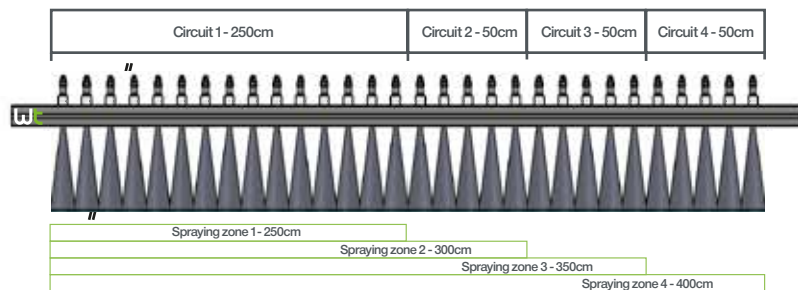
PROJECT : Spraying ramp for a concrete walls production line

Replacement of the spraying installation by a Wouters Tecnolub spraying ramp with SB35 nozzles :

- 1 nozzle every 5cm
- distance mold-ramp : 20cm
- mold speed : 200mm/sec
- the ramp is divided in different circuits to allow to spray different sizes of molds
- oil pressure : 0.5 bar - air pressure : 0.5 bar
- quantity of oil applied : 30gr./m² (+/- 10gr.)



Before



After





wouters**tecnolub**

Superior Spraying Technology

SPRAYING SYSTEMS



We have developed different spraying solutions for every kind of precast concrete workshop.



Manual Spraying Unit

Portable spraying units available in different capacities from 23 liters to 100 liters..

«The Use-It Everywhere» solution

Low-pressure Spraying Ramp

Fixed spraying ramp that can work for most of the precast concrete production line...

The Economic & Ecologic solution

Customized Spraying Ramp

Custom spraying system for a complete control of the oil applied on the molds

The Accurate solution



Onsite demo

We have developed a demo spraying system that we would be pleased to install on your production line for a real-life demonstration...



Onsite demo

A test is worth a thousand words...



Some references

BLOCKS - SLABS - WALLS

DOU-BETON | DOUTERLOIGNE | ROOSENS BETON | OMNIDAL | VETS | PREFER | KERKSTOEL | DAERDEN | INTERBLOCS
PAULI BETON | ECHO | FREDERICK | SCHEYS BETON | ROOSENS BETON POLSKA | FORTERA BUILDING PRODUCTS Ltd
WHITTLESEY BLOCK WORKS ...

ROOF TILES

LAFARGE | ETERNIT | KORAMIC | TRILCO | ARGIBETAO ...

AAC

XELLA | YTONG | SILKA | PREFABET | BRUK-BET | H+H ...

PAVINGS BLOCKS

CHYZBET | JADAR | BRUK-BET ...

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