

# CO.ME.S.

SPECIAL EDITION

**ARES  
KRONOS  
CONJUNCT... AGAIN**



**EPOXY RESIN  
DRYING & CATALYSIS  
ELECTROMAGNETIC WAVE OVENS  
THE IN - LINE PLANT CONCEPT**

  
**COMES**<sup>TM</sup>  
by **xilex**

# INTRODUCTION

Resin Lines, and in general production plants of slabs, need:

1. An appropriate design
2. Optimize the flow of slabs
3. Use the proper materials

In COMES, we know what we are talking about... every resin line is customized according to the type of material processed, the production required, the type of resin needed and the area available in the plant.

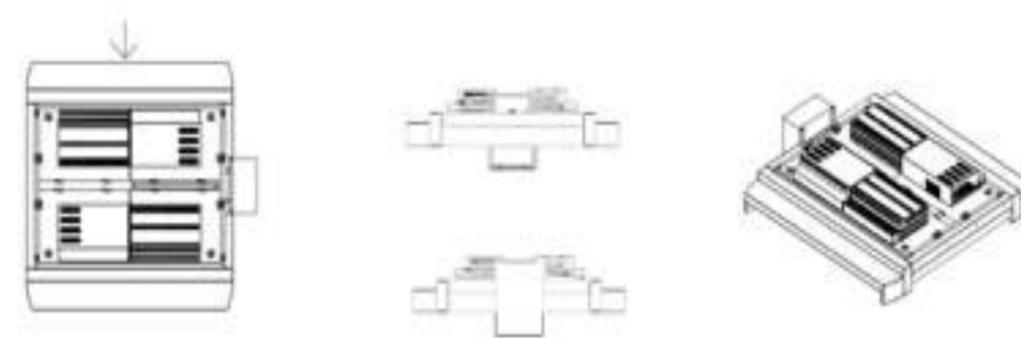
We use the Xilex ovens ARES 3500 Y KRONOS 3500 that allow us to design resin lines and marble and granite production plants with a 4 in 1 versatility:

1. improving the quality of the finish of the materials,
2. prolonging their brightness,
3. reducing processing times and costs,
4. and increasing production.

With the support of Xilex, the provider of advanced radiation systems!

## ARES 3500 DRY TECHNOLOGY

The use of the **ARES 3500** technology allows to dry water 100% and to help later filter properly the resin without the use of vacuum, filling all cracks and holes to make the best adhesion.



## KRONOS 3500 HARDENING TECHNOLOGY

The use of the **KRONOS 3500** technology produces a "molecular vibration" that accelerates the activation of the resin hardening. This technology, working together with an accumulator studied for this purpose, allows, with the lower cost of energy, to achieve

greater filtration, penetration, and effects (light, medium, dark tones, etc.) in marble and granite. **It allows to eliminate waiting times of slabs of 24-48-72 hours as it is processed, it can be polished immediately.**



# ARES 3500 | DRYING OVEN

## MODEL

**ARES 3500 / 1M - 2M**

## DESCRIPTION

Dehydration equipment for water drying applications by electromagnetic waves, characterized by the great penetration on pieces of marble, ceramic or natural stone.

This equipment provides an instant drying inside and in the surface of the slab, which allows a quick handling.

## APPLICATIONS

Marble and granite:

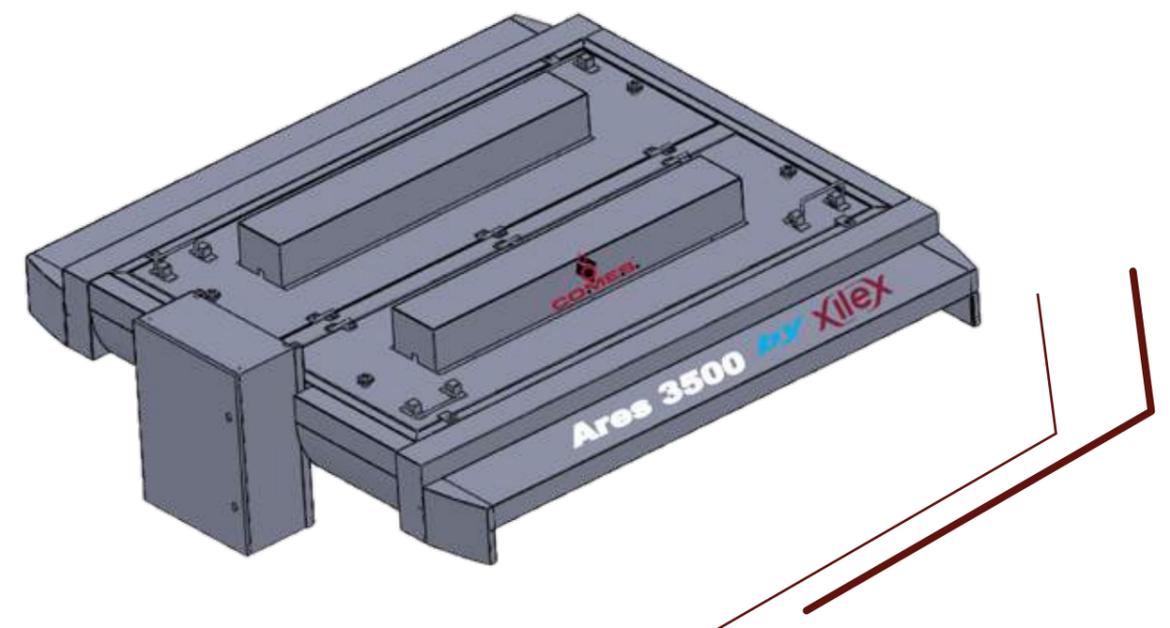
- Removal of water at the outlet of the calibrating machine prior the polishing machine
- Drying internal and superficial humidity in reinforcement and / or finishing lines.

Advantage:

- Low maintenance
- Minimum consumption (it only consumes when there are pieces circulating inside it)
- Instant start at 100% efficiency.
- Possibility of electronic control of the oven's power
- Custom made to different formats.

## TECHNICAL FEATURES

Type of material	MARBLE				GRANITE				Unit
	10T	15T	20T	30T	10T	15T	20T	30T	
Maximum format	2200 x 3300				2250 x 3300				mm
Production	10T	15T	20T	30T	10T	15T	20T	30T	Slabs/h
Electric power	43	43	43-86	86	43	43	43	43-86	Kw
Input Voltage / Frequency	400 V III + N + TT / 50-60								V / Hz
Continuous work speed	0.60	0.90	1.20	1.80	0.55	0.82	1.10	1.65	m/min
Width, height, length	2500 x 1600 x 2500								mm
Electricity cost	± 0,13				± 0,09				€/m2
Operation mode with accumulator <45 min.	Low energy				Low energy				
Weight	200								kg
Other productions: >30T/h	On demand								



# KRONOS 3500 | RESIN CATALYSIS OVEN

## MODEL

**KRONOS 3500 / 10-15-20-30 SLABS**

## DESCRIPTION

EPOXY resin catalysis oven, electromagnetic wave system based, with the ability of adapting to any resin, allowing effects to the stone: light, dark tones, greater filtration, etc.

Advantages: low maintenance, instantaneous operation, reduction of consumption since the equipment activate the resin by molecular vibration. It can be used to reinforce or/and to finish the slab.

## APPLICATIONS

EPOXY resin catalysis equipment, for marble, granite or composite, for or finishing OR reinforcement lines with fiber net.

It allows to work continuously "IN LINE" assembled with the polishing line.

The equipment is prepared to work with three types of resins that allow us to optimize the maximum energy and resin consumption.

- 1. Fast Resin 24 h:** for marbles and clear granites where you do not want to raise color tone.
- 2. Resin 48 h:** for exotic granites where it is reinforced in the face to polish
- 3. Resin 72 h:** for dark shades.

## TECHNICAL FEATURES

Type of material	MARBLE				GRANITE				Unit
	10T	15T	20T	30T	10T	15T	20T	30T	
Maximum format	2200 x 3300				2250 x 3300				mm
Production	10T	15T	20T	30T	10T	15T	20T	30T	Slabs/h
Electric power	40	75	110	150	45	87	129	173	Kw
Input Voltage / Frequency	400 V III + N + TT / 50-60								V / Hz
Continuous work speed	0.60	0.90	1.20	1.80	0.55	0.82	1.10	1.65	m/min
Width, height, length	2800 x 2200 x 3600								mm
Electricity cost	± 0,12				± 0,08				€/m2
Operation mode with accumulator <45 min.	Low energy				Low energy				
Weight :	1.105								kg
Other productions: >30T/h	On demand								

## ADVANTAGES



instantaneous operation



reduction of consumption



reinforcement of finishing



fast production lines



flexible production lines to different material



light production lines: not intermediate warehouse required



custom production lines



high productivity production lines



production lines that optimize the finished product



possibility of connecting to MES system



production lines committed to the environment: prepared to work with water-based resins



low maintenance

# INTEGRATION

This is the great competitive advantage of XILEX OVENS. It is important to note that Xilex has the knowledge about:

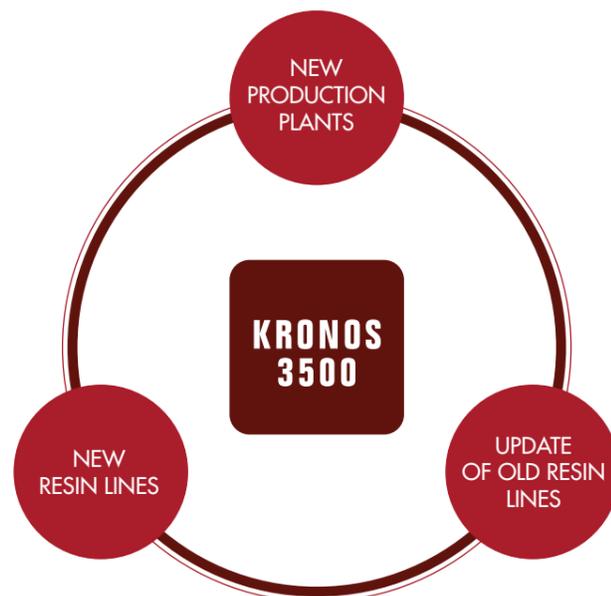
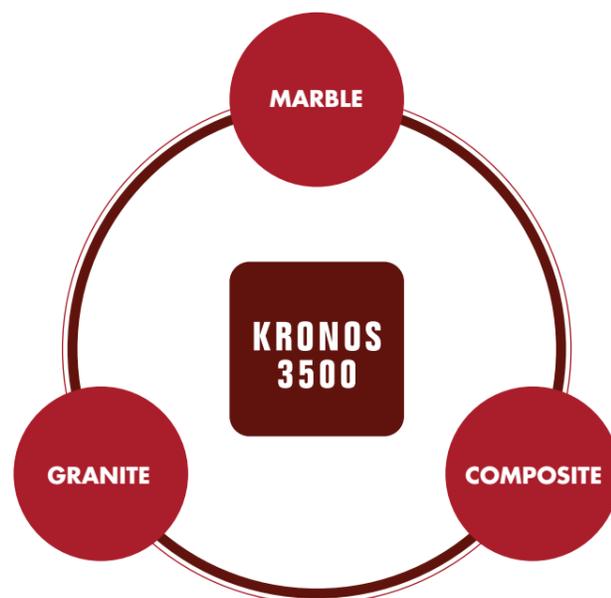
- Epoxy and polyester resins
- Radiation systems for catalysis

and the INTEGRATION of these technologies to obtain the best finish after polishing.

The experience of more than 20 years, makes Xilex own a know-how that allows that integration is done PERFECTLY for any type of marble and granite making the necessary adjustments for the optimal operation of the resin with the catalysis oven.

## APPLICATIONS

The benefits of Kronos 3500 allows from updating old resin lines, to the designing of new production plants or just new resin lines



## FEATURES



### 1. INCREASE QUALITY

- Better filtering of the resin. (does not need vacuum)
- Higher resistance and brightness duration
- Less breaks
- Less amount of resin adapting to the desired effects (light, dark tones, etc.)



### 2. TIME

- Less curing time
- Less overall processing time (allows to work IN LINE with the polisher) IN LINE PLANT CONCEPT
- Less handling time



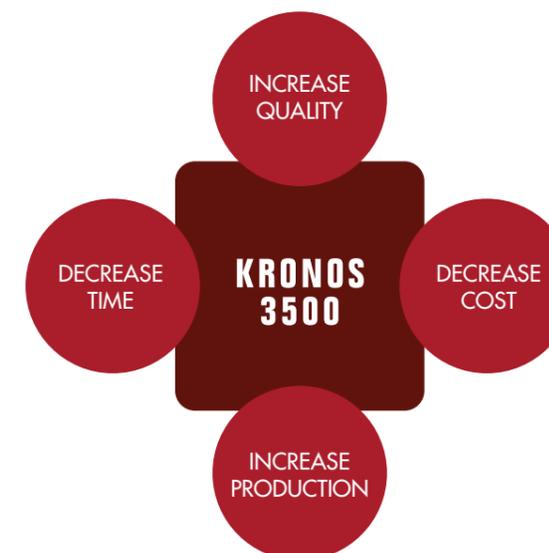
### 3. COST

- Lower energy consumption (Machine doesn't consume when it doesn't produce)
- Lower resin consumption (molecular vibration allows optimal filtration of the resin)
- Less processing space (NO intermediate warehouses)
- Low maintenance
- Low cost / m2



### 4. OPERATION

- Possibility of diversity of finishes
- Reduced dimensions -> less space occupation
- Immediate operation (without preheating)
- No intermediate warehouses -> IN LINE process
- (at the end of the line the resin is fully catalysed, which allows working IN LINE with the polisher and avoid unnecessary material transport and storage)
- DON'T use MW -> is not dangerous for operators
- Guaranteed production although the weather conditions vary.
- Radiation + chemical: allows the best finishes after polishing
- System allows the evolution to water-based resins, more ecological than the current ones. Speed can be adjusted to the required production.
- No major foundation works are required



# PROCESS

The Kronos 3500 technology allows us to design epoxy resin lines with low energy consumption. It can work directly (reserved for low productions) or optimize the process by inserting an accumulator for high productions (without energy consumption, only time), which also allows us to perform different effects on natural stone (filtering, retouching, light tones, dark, etc.).

It can cover all work modalities of 24-48 and 72 hours, for marble and granite, in times below 45 minutes (This time is marked by the chemical supplier companies to be polished immediately with all guarantees).

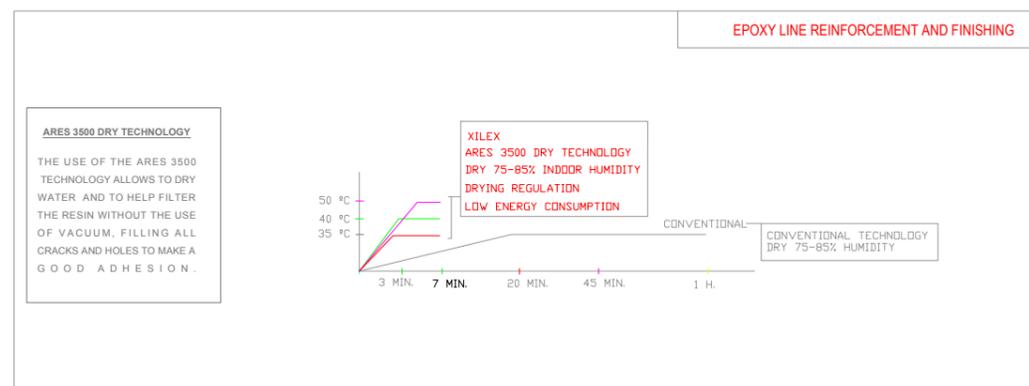
The Kronos 3500 technology uses "Molecular Vibration" to activate the resin and, together with the accumulator (studied for the process), it

can facilitate the chemical reaction of the resin with less quantity of resin, giving the stone the best characteristics, optimizing the maximum the process and the costs.

Savings of more than 30% energy and 20% resin are achieved. These savings make the amortization of the resin line much faster than with conventional processes.

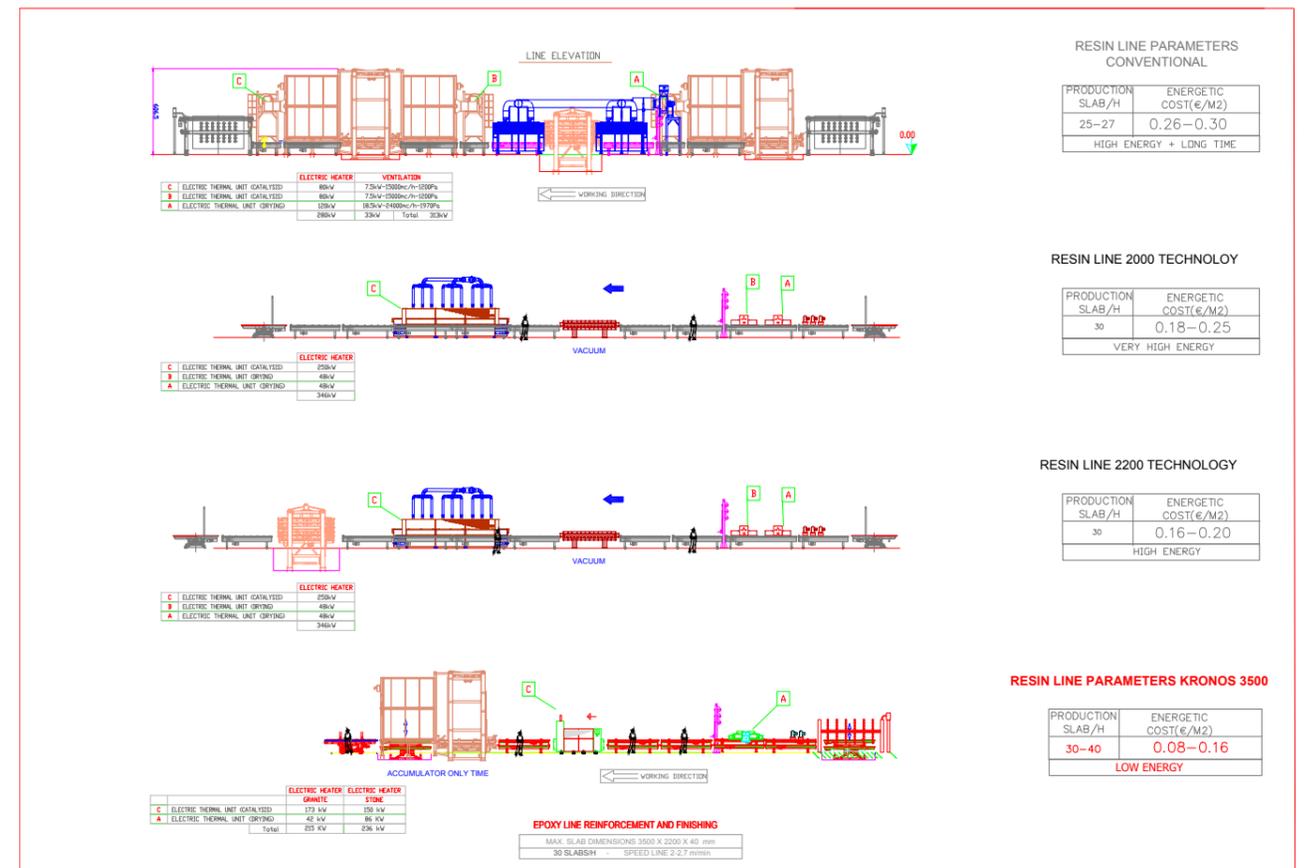
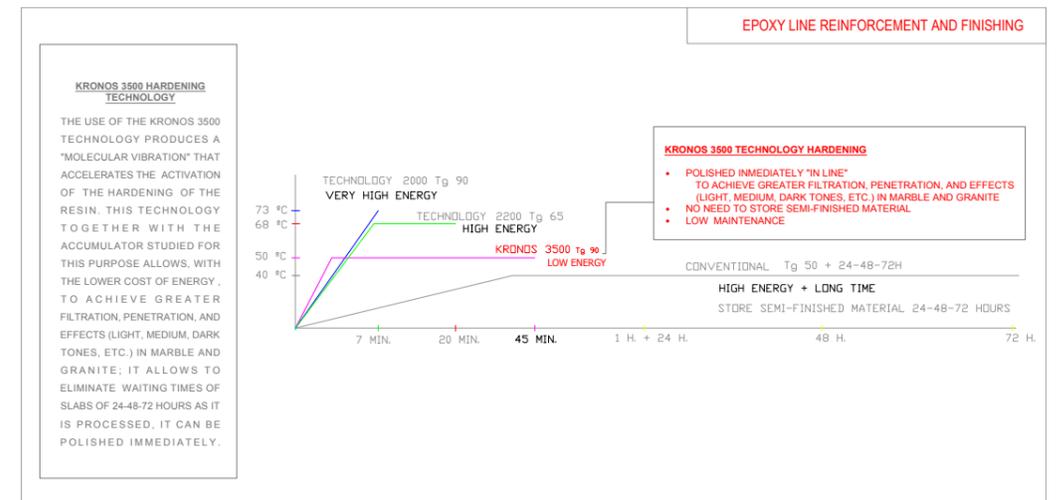
The following graph defines the ranges of working times of the ARES 3500 machine for water dehydration for marble and granite, with the following advantages:

- Dry 75-85% indoor humidity
- Drying regulation
- Instant operation
- Low energy consumption



Next image compares radiation technologies with respect to the Kronos 3500 machine and its energy ranges and working times for the hardening of resin for marble and granite, with the following advantages:

- Polished immediately "IN LINE" to achieve greater filtration, penetration, and effects (light, medium, dark tones, etc.) In marble and granite
- No need to store semi-finished material
- Low maintenance



Thanks to the Kronos 3500 technology, it is possible to polish the marble and granite immediately after the resin line, so we can reduce or eliminate the intermediate material stores. This advantage gives you the possibility of processing "IN LINE" marble and granite, because it is not necessary slabs to be loaded or unloaded throughout the process.

In addition, the Kronos 3500 technology simplifies epoxy resin lines with respect to conventional ones, being more effective, with lower energy cost and resin consumption, optimizing production at all times.

simplest production plants  
→ greater production

# ARES 3500 KRONOS 3500

THE IN - LINE PLANT CONCEPT



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