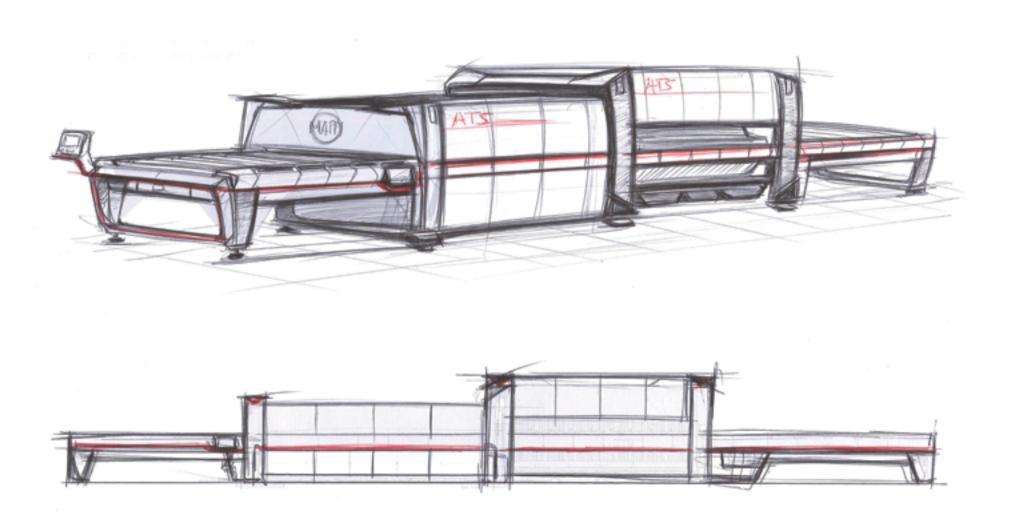
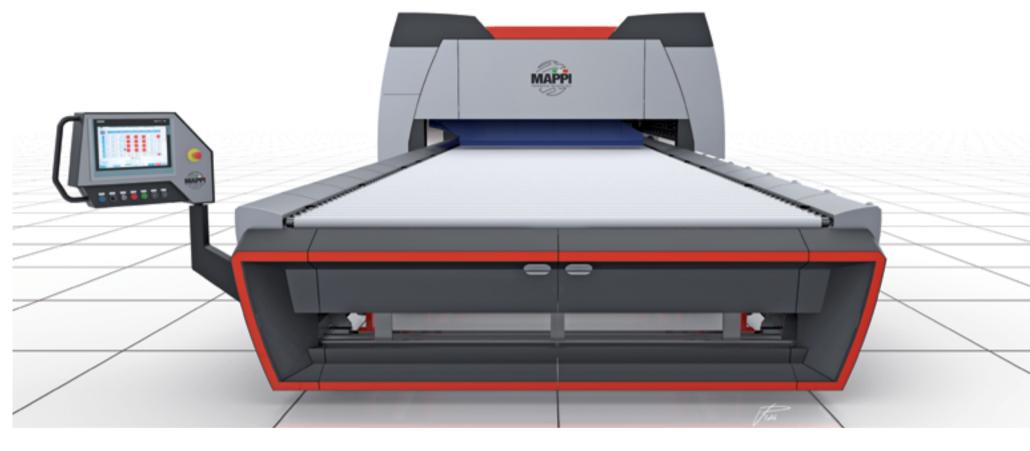
1754.0 eCO convection

Raise the Bar







The one who loves his work is not happy with excellence, he always points be-yond, towards perfection.

That's why in Mappi since 1993 each new creation has been a significant mile-stone in the path towards perfection, every achievement rises the bar higher.

Today ATS 4.0 does not want to define a new standard, it aims to overcome it.

# 10 PCO convection

All the power you need, when you need it.

ATS 4.0 raises the bar in limiting consumptions through the use of coordinated MHS, ESS and IHS systems, a Mappi exclusive.

ATS 4.0 raises the bar in productivity because it minimizes the time between tempering cycles, until you approach a virtually continuous cycle without down time for the adjustment of the operating temperatures.

### All the precision you want, up to perfection.

Glass is an honest material, unable to hide its strengths and weaknesses. Any imperfections in

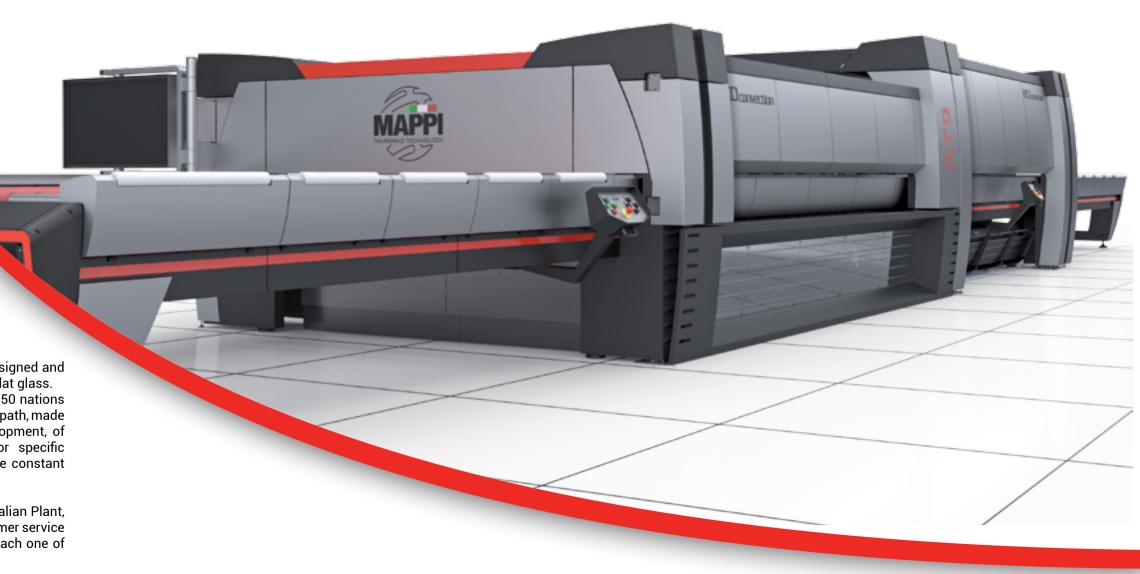
flatness, each optical distortion undermines the value, especially in the case of the most modern productions, such as laminated or the Low Emission.

ATS 4.0 reduces to the minimum values now possible all glass defects due to the computer management of the movement, the heating and air temperatures for tempering, supported by the use of engines and materials of absolute excellence.

Perfection is not an accident, it was born from the meeting of experience and innovation.

Mappi International since 1993 has designed and manufactured furnaces for tempering flat glass. More than 300 plants installed in over 50 nations represent the stages of a steady growth path, made of investments in research and development, of uncompromising quality, attention for specific needs of each customer, especially the constant desire to outdo.

Mappi America comes up beside the Italian Plant, located in Florida; this allows the customer service department to reach within 24 hours each one of our plants, anywhere.



# **GHBS XTREME PROFILE CONVECTION SYSTEM**

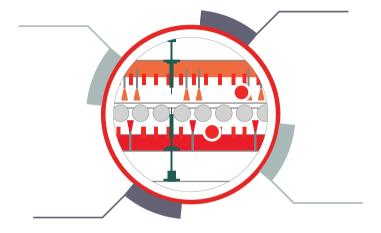
The "heart" of a furnace for tempering is in its ability to produce heat, but this is nothing if it is not accompanied by a clear and reactive "mind", which manages in the best way both the heat and the air flows on the glass, its functional qualities, consumption and productivity of the system.

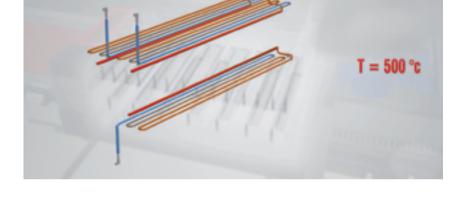
A tempering furnace with exceptional performances as ATS 4.0 has an extraordinary heart. GHBS Xtreme Profile Convection System allows you to:

- Process all the type of lowE glasses
- Reduce cycle time and increase productivity
- Manage distribution of air separately in lower and upper heating chamber
- Modulate the pressure of the air in single areas

This new and exclusive extreme profile convection system allows to temper every single coated glass on the market, selective, solar controlled, **LowE Magnetronics with a 0,01 index of emissivity** included and it also allows to increase the quality of the tempered plates and the productivity of the plant.

THE HEART AND THE MIND OF ATS 4.0





Inside the heating chamber



Heating section with convection system



MHS ESS IHS

#### MULTIZONE HEATING SYSTEM

It automatically manages through intelligent modules the temperature of the furnace through a network of electronically controlled sensors. In this way it remains constant and focused only in areas where there is the presence of glass.

#### **ENERGY SAVING SYSTEM**

Heating and forced ventilation stages are coordinated and managed by a computerized system optimizing the consumption and allows to significantly reduce the installed power required by the entire system.

#### INTELLIGENT HEATING SYSTEM

The internal temperature of the furnace is controlled with an accuracy of +/- 1'C: this prevents overheating of the ceramic rollers and avoids downtime for the adaptation of the furnace temperature.

# A lot of innovations for the service of your best glass...

## EC

#### REMOVAL SYSTEM OF THE HEATING CHAMBER

EC is in order to facilitate access to the interior of the heating chamber. For the cleaning and maintenance or replacement of the ceramic rollers, this type of system can be equipped with the lower chamber is on wheels and tracks collected

### **SYNCHRO**

#### **ROOM'S ROLLS MOVEMENT SYSTEM**

The patented system which allows the perfectly synchronized movement of the ceramic rollers on which the glass flows. The system avoids the use of sulfur dioxide in the heating process.

### TOUCH

#### INTEGRATED TOUCH SYSTEM

The system monitors in real time the parameters of the tempering process, it immediately prints the compliance report for CE and ANSI glass standard, it automatically stores each production cycle.

ESS: ENERGY SAVING SYSTEM MHS: MULTIZONE HEATING SYSTEM SYNCRO: CERAMIC ROLLS MOVEMENT SYSTEM MAN A MAN A and the second

> IHS: INTELLIGENT MANAGEMENT SYSTEM FOR THE SELF-ORGANIZING HEATING

TOUCH: INTEGRATED TOUCH(TM) SYSTEM

EC: REMOVAL SYSTEM OF THE HEATING CHAMBER

AC ATI SH

#### **ACTIVE THERMAL INSULATION**

The ATI (Active Thermal Insulation) fully reduces thermal SH (Smart Heating) appears from the cooperation with dispersion, a success due to a continue research on the Gefran and Kantal, an even more precise new system materials, in collaboration with the most prestigious of resistances capable of maintaining the unbeatable research centers in Europe.

#### **SMART HEATING**

300 x 600 mm form, it succeeds to increase the thermal efficiency thanks to the new materials exclusive developed for Mappi, all of this is controlled by new static relays that allows a modulation of the energy never seen before.

#### ADVANCED COOLING

AC (Advanced Cooling), an original design for the blowing system allows an even more precise control while tempering. It substantially decreases the iridescence of

# A great result comes from many small attentions...

#### INTELLIGENT MODULES FOR HEAT DIFFUSION

ATS 4.0 handles the heat through intelligent of only The glass movement is ensured by an extra quality ceramic 300x600mm modules. Each of these is managed by a roller system, the best solution for duration, thermal efficiency, network of electronically controlled sensors. This makes fluidity of movement. stable the temperature and minimizes power consumption.

#### CERAMIC ROLLERS

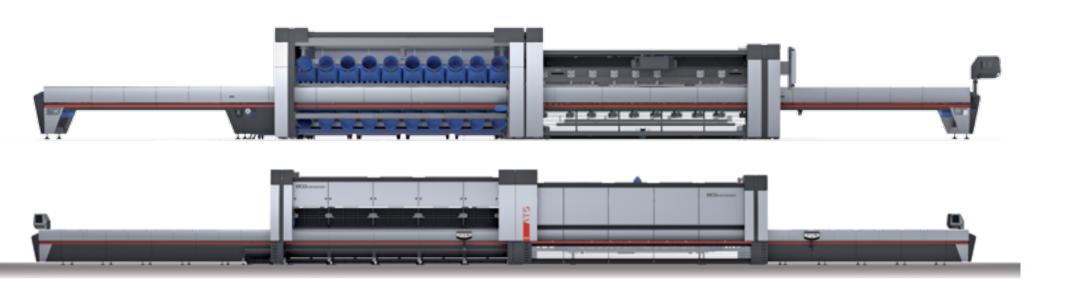
#### INTEGRATED TOUCH SYSTEM

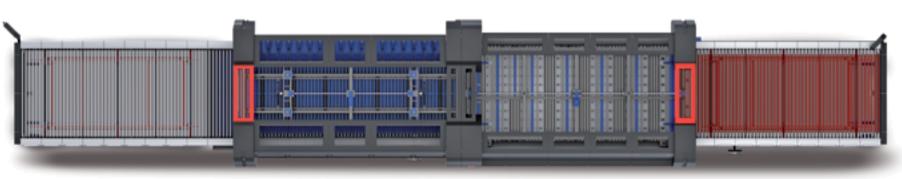
The movement of the rollers is ensured by the high precision "brushless" type motors. This helps to ensure to the glass you will produce the optical characteristics typical of Mappi furnace excellence.



### TAB SERVICE SYSTEM

The system allows the tempering furnace operator to provide real-time technical assistance through a dedicated tablet interface.





TECHNICAL SCHEDULE / SCHEDA TECNICA								
	Loading area mm/inches	Loads / hour Clear Glass 3 mm 4 mm 6 mm 10 mm 19 mm	Loads / hour Super LowE 0,01 3 mm 4 mm 6 mm 8 mm 10 mm	Maximum Power Kw - 4 mm thick	Energy Consumption Kwh/m <sup>2</sup> - 4 mm thick	Lenght mt. / feet	Plant dimensions Width mt. / feet	Height mt. / feet
2200 / 4200	2200 x 4200 / 86 x 165	30 25 17 10 5	24 20 13 10 8	480	1,7	22 / 72	6 / 20	3/10
2500 / 4200	2500 x 4200 / 98 x 165	30 25 17 10 5	24 20 13 10 8	520	1,7	22 / 72	6 / 20	4 / 13
2500 / 5000	2500 x 5000 / 98 x 196	30 25 17 10 5	24 20 13 10 8	550	1,7	25 / 82	6 / 20	4/13
2700 / 6000	2700 x 6000 / 106 x 236	- 25 17 10 5	- 20 13 10 8	750	2	30 / 97	6,5 / 21	4/13





Mappi International has put down its business history roots in 1993.

A journey last more than 20 years has driven the company to be the leader in the production of ovens for the glass tempering. Its machineries are the safest and the most reliable.

For this reason they have rapidly became a Made in Italy's source of pride.

The Quality first, in order to be always recognized

and appreciated by our customers, everywhere.

The courage and the strength to believe, even with humility, in our means.

The dedication and the constant investment in the research and development to ensure our company a stable growth, knowing that there is no better way than this and that success comes step by step, gaining every single centimeter day after day.

A direct presence in the USA with an our controlled Sales and Customer Care services and maintenance enterprise Mappi America. Mappi has always in more than 50 countries.

pursued and developed new partnerships with American companies. The story between Mappi and the United States is a long one, a relationship that was built during the last twenty years and that led the company to establish a new warehouse in Naples, Florida In order to meet the needs of our American clients, our warehouse will be always available, along with our customer service, which is able to solve any problem.



# Mappi International

Via A. Fieramonti, 1 04012 Cisterna di Latina (LT) - Italy

**Mappi America** 3888 Mannix Drive #314 34114 Naples, Fl - USA

www.mappi.it - www.mappi.us







