



*BUSINESS PRESENTATION*

**MAINTENANCE**

**OVERHAUL**

**ASSISTANCE**

**BLOW MOULDING MACHINES**



# A GUARANTEE OF QUALITY

Technicians specialized in the processes of blow molding machines are at your disposal to intervene quickly in any situation. From maintenance to technical assistance, up to spare parts, we offer a 360 ° service.



WE GUARANTEE PERFORMANCES THAT MEET YOUR DEMANDS IN TERMS OF **EFFICIENCY, RELIABILITY, FLEXIBILITY, AND ENERGY SAVING.**

**BBM's technical support** operates on different models of blow moulding machines from the main international manufacturers, guaranteeing the results of the interventions carried efficiently.

MAINTENANCE

OVERHAUL

ASSISTANCE

# BBM SERVICE IN NUMBERS

The first step of the maintenance is an **in-depth inspection** in view of periodic interventions, overhauling, or replacing only the parts that need maintenance, thus reducing costs for the customer.



25%

88%

70%

30k

300

100



**NEW  
CUSTOMERS**  
every year



**FIXED ISSUES**  
in the first 24 hours



**LESS**  
machine downtime



**BOTTLES**  
made per year



**INTERVENTIONS**  
of maintenance



**TRAINING**  
courses

# WHY US



## ASSISTANCE GUARANTEED

We guarantee continued assistance, even from a distance. **In a short time, we restart your system, minimizing downtime**



## SPEEDNESS AND FLEXIBILITY

**We are a valid alternative to manufacturers of the sector.** Our technicians can work on shifts and holidays



## COST SAVINGS

In addition to having advantageous rates compared to manufacturers', **we optimize machines by reducing production costs**



## GUARANTEE OF RESULTS

On the interventions carried out and the spare parts provided, we guarantee optimal results. **The formula satisfied or refunded applies**

WHAT WE DO

# BLOW MOLDING MACHINE MAINTENANCE

**Complete overhaul for ordinary and extraordinary maintenance on blow molding machines** from different manufacturers, with a guarantee of efficiency

**Disassembly and complete overhaul of the wearable parts of the machine.** Our technicians can work at the customer's premises or disassemble pieces and take them to our workshops in San Pellegrino and Lenna, depending on the customer's needs and always guaranteeing minimum downtime.

BBM offers both immediate technical support services, to solve problems as soon as possible and in the best possible way, and preventive maintenance programs to maintain the performance of the machinery.

MAINTENANCE, OVERHAUL, AND ASSISTANCE  
BLOW MOLDING MACHINES - BBM

# 35%

**of failures occurs due to a lack of maintenance.**  
A periodic check of the machinery and a preventive action minimize the problems due to wear, thus delaying the investment for a new machine.

**BBM**  
YOU ORIENTED SOLUTIONS



**BY YOUR SIDE  
IN PACKAGING**

WHAT WE DO

# BLOW MOLDING MACHINE MAINTENANCE

It is advisable to **carry out annual maintenance of the production lines**, especially in winter, to avoid breakdowns and malfunctions in the summer season, when the greatest production peaks are recorded.

Being equipped with brushless motors - electronic motors, **the machines can incur a significant increase in energy consumption** if worn or subjected to pressure. To avoid additional costs, it is advisable to provide for regular maintenance, both of mechanical and electronic parts.

Our process engineers can view the data entered in the parameters, understand if the machine is working in a correct and optimized way, and aid with any necessary upgrades.



**Our expertise regarding the course of materials and plastic polymer transformation technologies makes BBM Service the perfect partner to put into practice new blowing recipes and other upgrades aimed at saving energy.**

**The customer always has the end-of-maintenance report available, to be sure of what has been done on the machine and to foresee future interventions.**



WHAT WE DO

# SALE OF SPARE PARTS ON BLOW MOULDING MACHINES

**Very efficient and fast spare parts service**, to minimize the inconvenience associated to shutdowns of production lines.

BBM's technical department develops spare parts compatible with the originals, tested and guaranteed over time, implying savings in costs and time.

The most common spare parts are already in stock in BBM's warehouse, thus solving the current problems of raw material supply. For more specific parts, our engineering department can carry out special studies.

## CERTIFIED QUALITY

**All our spare parts are tested in a certified laboratory.** We carry out destructive tests to verify the composition of the materials and the effectiveness of treatments

## EXPEDIENCE

**The strength of our spare parts is a competitive value for money:** our sales department offers lower list prices, spare parts kits, loyal programs and fast deliveries at no additional cost



ON-SITE  
COURSES

TECHNICAL  
TRAINING

# TRAINING COURSES

To better train your staff and make the best use of machinery.

Our technicians and specialized instructors carry out training courses at the customer's plant to train local staff to the best use of the machinery.

The course content can be adapted to the specific needs of the client; in general, we offer **advanced mechanical maintenance courses** and **process training courses** to make the most of the potential of blow molding machines, increase involvement, and maximize the potential of employees.

We provide all the necessary teaching material; at the end of each course, we issue each participant a certificate of attendance.



SPECIALIZED  
INSTRUCTORS

ATTENDANCE  
CERTIFICATES



WHAT WE DO

# SALE OF USED & OVERHAULED

**A careful selection of blow molding machines and other state-of-the-art machinery for food and beverage packaging.**

In addition to maintenance and assistance services, we offer the possibility of purchasing perfectly regenerated blow molding machines. Our highly qualified staff regenerates the machines by returning them to operation, reducing purchase costs, and guaranteeing excellent products as well as assistance.

A showroom of over 10.000 m2 is available to view the models of interest and follow the revision at every stage.

**Strict selection**

**Overhaul, retrofit, and machine configuration**

**Assembly and final startup at the customer's**

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BLOW MOLDING MACHINES - BBM



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IN PACKAGING**

WHAT WE DO

# UPGRADE

**We transform your line capacity safely and effectively, providing the latest innovations to help you achieve your production goals.**

After a careful analysis of your machinery, we will be able to identify the areas on which it would be appropriate to work to meet new production and market needs.

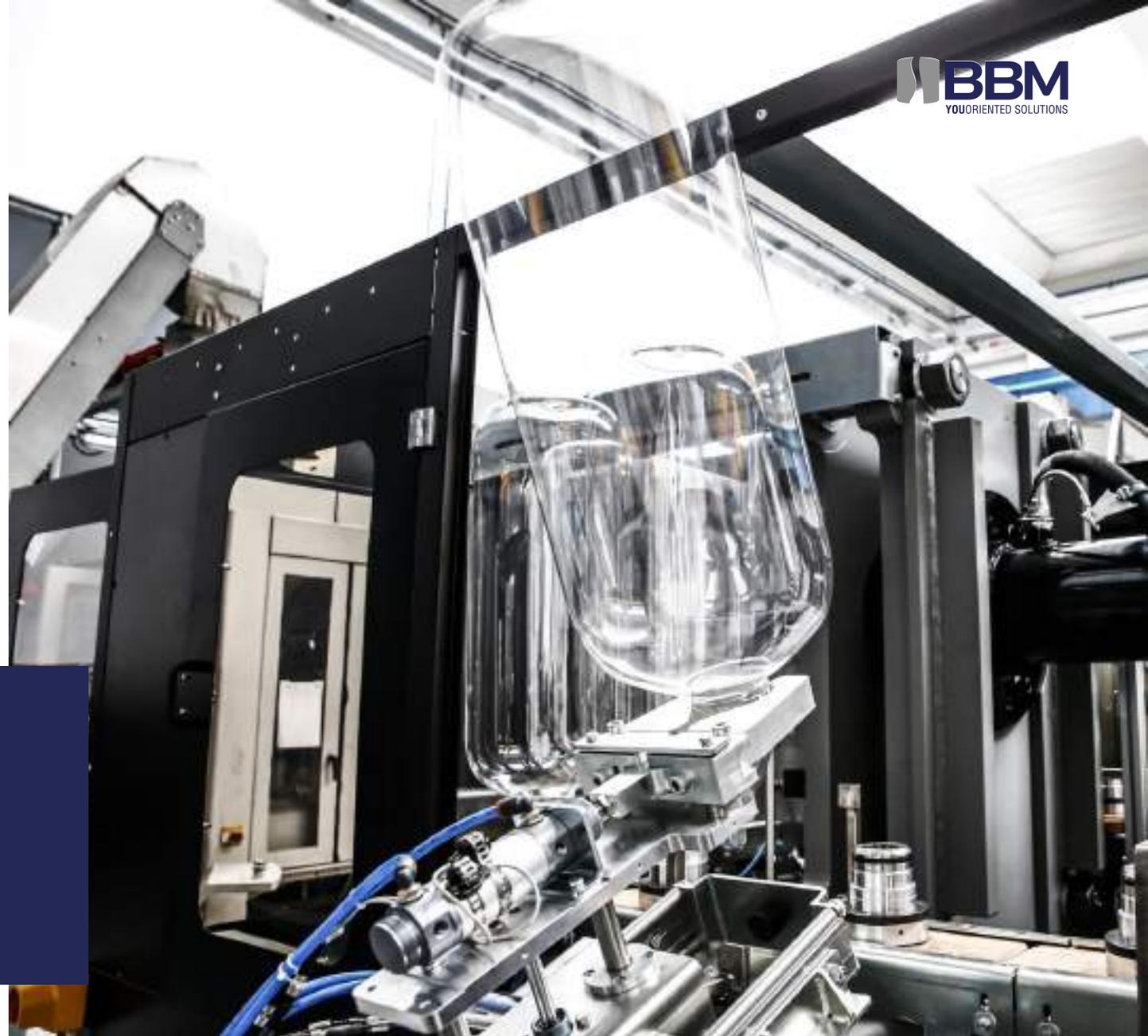
## NEWS - ENERGY SAVING

We have invested in the research and development of solutions to ensure substantial energy savings on bottling machinery. Thanks to a studied combination of upgrades made on blow molding machines of the main brands, it is possible to obtain safe and immediate energy savings, without altering the quality of the finished product.

Learn more at [www.bbmpackaging.com](http://www.bbmpackaging.com)

MAINTENANCE, OVERHAUL, AND ASSISTANCE  
BLOW MOLDING MACHINES - BBM

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# UPGRADES AND IMPROVEMENTS



**CERAMIC PANELS**



**PLC MIGRATION FROM SIEMENS S5 TO S7**



**PRESSURE REDUCTION AND AIR RECOVERY**



**MODIFICATION OF THE PYROMAT**



**NECK FINISHING CONVERSION**



**FORMAT CHANGE**

FORMAT CHANGE

# FORMAT CHANGE

We are able to provide **new molds** and all the necessary equipment and software to make the format change.

Thanks to the support of our expert technicians, you can give new identity to existing blow molders and adapt your line to **new production needs** for processing new formats.

## WHAT DO WE DO

AUDITS

DESIGN AND REALIZATION OF EQUIPMENT

INSTALLATION AND TESTING

MAINTENANCE, OVERHAUL, AND ASSISTANCE  
BLOW MOLDING MACHINES - BBM

BBM



BY YOUR SIDE  
IN PACKAGING

# NECK-FINISHING CONVERSION

The conversion of the bottle neck is the ideal solution for a manufacturer who wants to reduce costs without changing the stylistic identity of the bottle.

**With the conversion of the thread, a significant reduction in the lost preform can be achieved.**

The use of a light-weighted preform requires the necessary adaptation of the stretch-blowing machine to the new preforms. Having a different neck finish than the original one.

The quality of the parts designed by engineers and materials used guarantee high performance and excellence in results, ensuring efficiency together with a small and cost-effective investment.



## OUR STRENGTHS

Sensible weight reduction, preserving bottle design. PET savings

Allows the adaption of blow molding machines to new efficiency and cost requests



# WEIGHT REDUCTION OF PREFORMS

Preform 1.5 Lt	Neck weight	Total preform weight
Alaska 267	3,3 g	25,3 g
26/22	1,94 g	23,5 g

Product	New neck finish	Possible weight reduction
Carbonated soft drinks	PCO 1881	-1,3 g
	PCO Corvaglia	-1,5 g
Still water	New 26/22	-1,3 g / -1,6g (ref. 267 ALK)
Soft drinks	BERICAP 33	-1,5 g / -2,5 g

BBM offers turnkey solutions for neck finishing conversion operating on all major blowing machines' brands, assisting its Clients from the design to supply and start-up of the equipment for neck finishing conversion.



# MAIN INTERVENTION AREAS



Modification of all machine parts that are concerning loading and insertion of preforms



Replacing heating oven details necessary to changing diameter or height of the neck finish



Pliers and clamping preform details heated by blowing station



Modify blowing mould cavity accessory

# EASY INSERTION OF THE PREFORM

The modification consists of the installation of a cam that facilitates the insertion of the mandrel into the preforms.

## ADVANTAGES

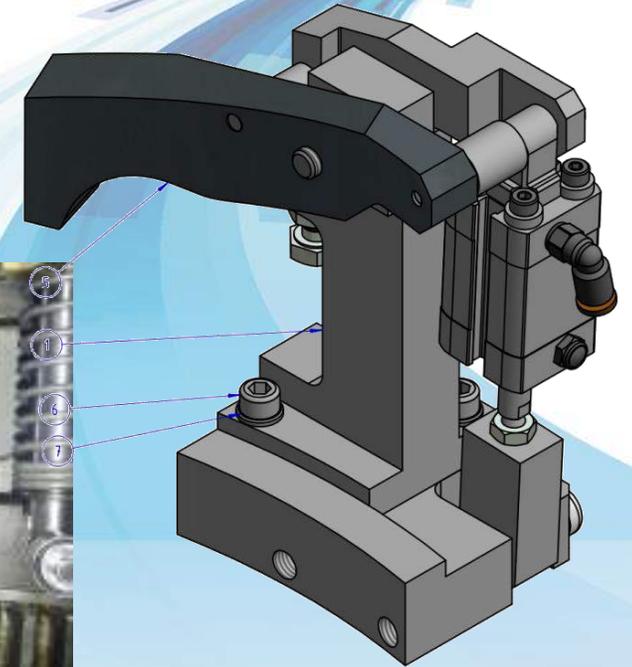
Facilitates the insertion of unsuitable preforms

Facilitates insertion in case of overheating problems in customized mandrels

Increased confidence that the grafting of the preform was performed correctly.

Greater safety that the preform, once grafted, is in perpendicular position.

Significant reduction of crashes in the furnace (e.g. lamp breakage) due to partial insertion of the preform.



# PLC MIGRATION FROM SIEMENS S5 TO S7

The upgrade consists of migrating the PLC to Siemens S7 and adding an operator panel that works as an interface with the system.

The modification includes the insertion of a Siemens touch HMI panel and the possibility of remote assistance and control, both locally and on another PC, ensuring instant interchangeability.

With the installation of the upgrade, we are able to predict any troubleshooting at the electrical level and intervene immediately.

## ADVANTAGES

Avoid problems of components out of production and market

New and intuitive operator interface

BEFORE



AFTER



DOUBLE SKATE TRANSFER

# HPT16 DOUBLE SKATE TRANSFERS

The upgrade has been designed to adapt and respond adequately to the lower neck finish tolerance of the new bottle fillets. With the same weight with previous transfers, the HPT16 transfer is more robust and reliable.

## ADVANTAGES

Successfully tested on machines of the main manufacturers

Reduced maintenance and machine downtime

Increase in the life cycles of your blow moulder

Interchangeable

**BEFORE****AFTER**

# PYROMAT MODIFICATION

The change consists in the elimination of an obsolete PID control, as it is out of production and therefore difficult to find.

Graphic regulator that facilitates the setting of parameters

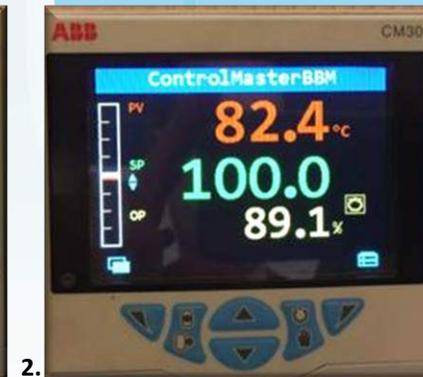
Elimination of the communication board on PLC S5

Eliminates system communication problems with Jbus cards

The device with an installed upgrade can control the temperature of the preform and can be integrated with digital signals for the control of the various adjustment steps and set-points of the instrument.

Although with a prior study phase by our engineering team, this upgrade takes only a few hours to install, drastically reducing machine downtime.

Why should you modify the Pyromat? In order not to change the entire machine – an operation that would require machine downtime and higher costs – but replace only the defective panel. The result is a modern and interchangeable system.



1. Digital settings for stand-by management;
2. Digital settings for temperature control.

# POLARIS SYSTEM SIDEL SERIES 1

Upgrade system created for blow-molding machines of the previous generation, consisting of 4 modules of intervention.

Module 1: changing step oven lights.

Module 2: implementation relay statics PWM.

Module 3: replacement of blowout valves group to control solenoid and the central manifold

Module 4: implementing of compressed air recovery

**This solution gives several advantages, among them:**

reducing energy consumption and allowing you to use lighter preforms with bottle output result comparable with the latest generation of blow molding machines, but with a much lower investment.



# BBM UPGRADE BBM ON SIDEL MATRIX VALVES

**BBM upgrade on Matrix blower valves to cut maintenance time and avoid possible errors**

**Problem:** frequent maintenance of the valve unit of the SIDEL Matrix blow-molding machine. The maintenance technician is forced to dismantle all the valves and their pre-blown cables, with the great risk of damaging the valve itself and its threads. A way must be found to carry out the work quickly and easily, safely

**Solution:** thanks to the special cover designed and installed by BBM Service's engineering department, maintenance can be carried out without dismantling the valve unit's pilots. Now the pilots do not have to cover the passage to remove the cover of the solenoid valve base, thus allowing safe, easy and fast maintenance.

**BEFORE**



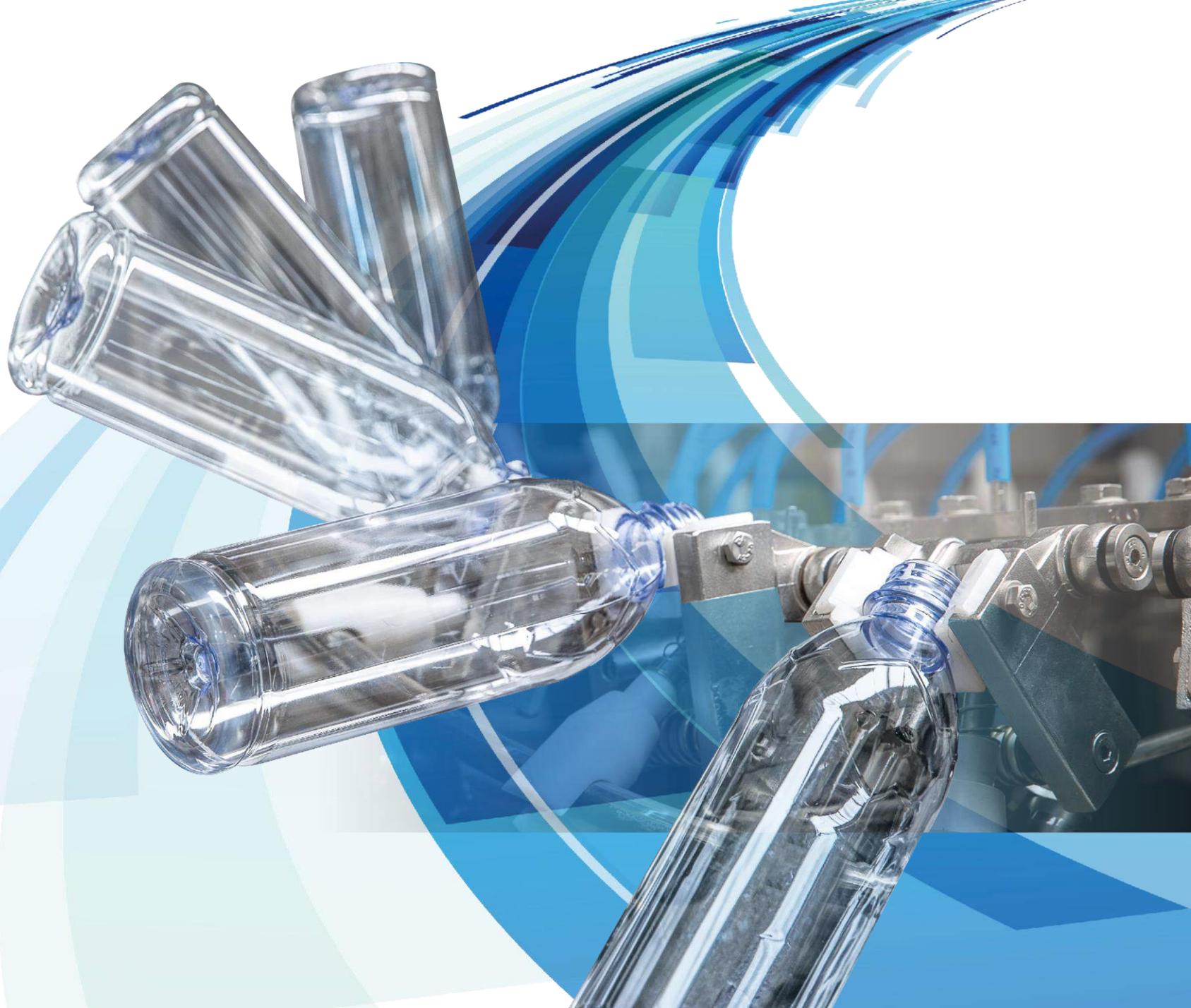
**AFTER**





COMPANY PRESENTATION

**ENERGY SAVING**  
**ON BLOW MOULDERS**



# TARGETED STRATEGIES TO SAVE ENERGY

In the last period, the costs of electricity and gas supply have doubled, **while in the first days of January 2022 the cost of the energy component alone has quadrupled compared to 12 months ago.** A real drain on companies. It's important to adopt strategies to limit energy consumption in production facilities.

**BBM HAS INVESTED IN THE RESEARCH AND DEVELOPMENT OF SOLUTIONS TO GUARANTEE ENERGY AND COST SAVINGS IN THE BOTTLING SECTOR. HOW?**

Thanks to a combination of upgrades designed for blow molding machines, **you can save on energy consumption** and achieving the same results



**AIR RECOVERY**

**PRESSURE REDUCTION**

**CERAMIC PANELS**

# AIR RECOVERY

## The possibility to reuse the blowing air for the machine utility

Without replacing the original blower manifold, an integrated wirelessly connected system for managing air recovery can be installed.

The system allows for automatic adjustment of the machine in operation, based on format and speed. It is possible to manage the auto check-up of the sensors and the diagnostics of each valve directly from the panel.

An upgrade that can be done on machines of the main manufacturers.

**We guarantee a certain return on investment and an intervention tailored to your needs.**



# PRESSURE REDUCTION

Precise and meticulous adjustment of the pressure required to blow the bottle to the right size.

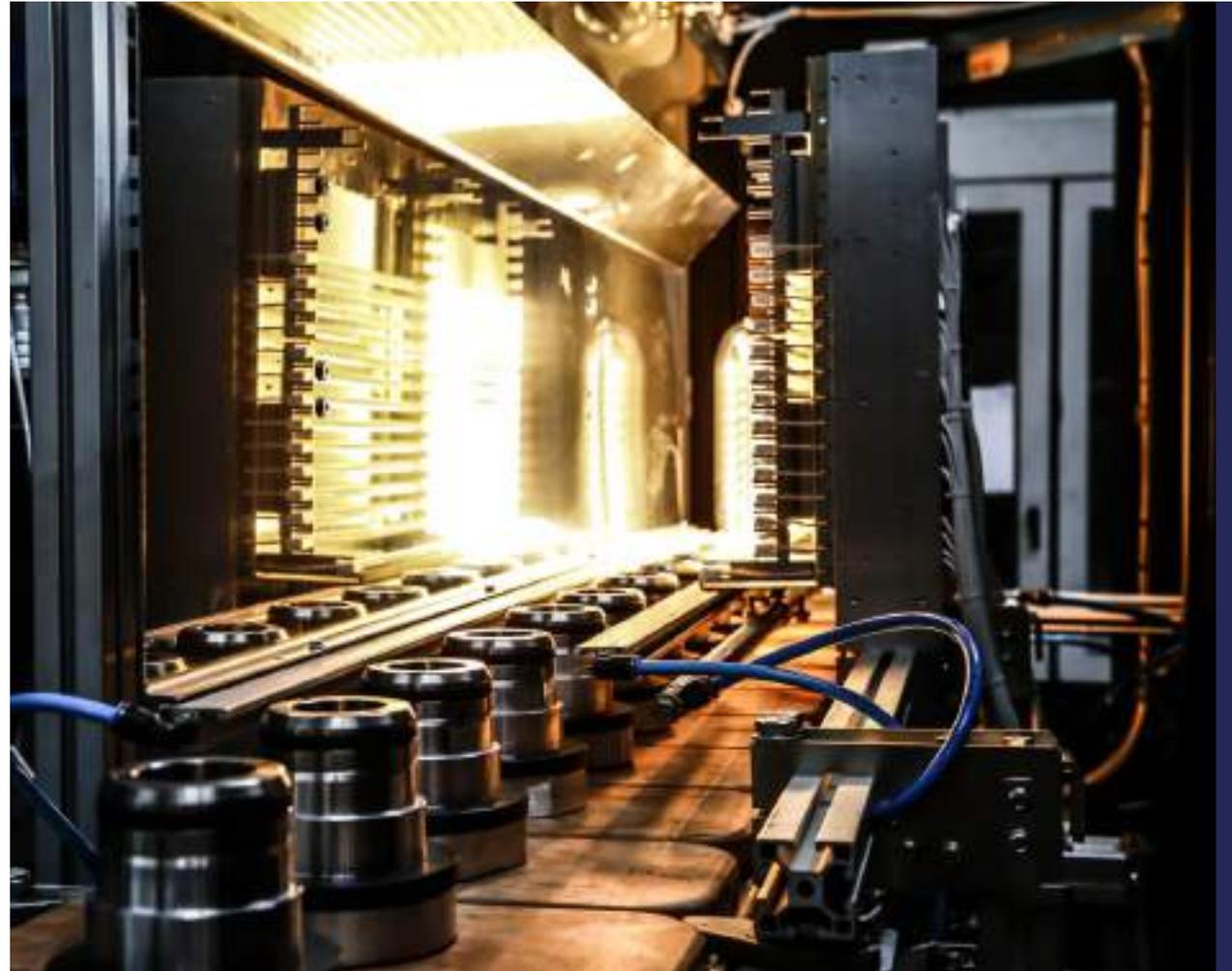
Thanks to this modification made by BBM Service, your blowing plant can work at the required pressures and no higher, while maintaining the quality of the blown bottle unaltered.

**Each 1 bar reduction in pressure can decrease consumption by 5%**  
Why would you wait?

**Compressed air pressure reduction**

**Intervention in a short time**

**Safe and immediate savings**



SAVE ENERGY

## CERAMIC PANELS

The new Ceramic Panels for Oven are panels with reflective ceramic walls, which result in faster heating of the preform.

By reducing the operating power of individual lamps, **the installation of BBM ceramic panels allows up to 35% less power consumption, resulting in cost savings.**

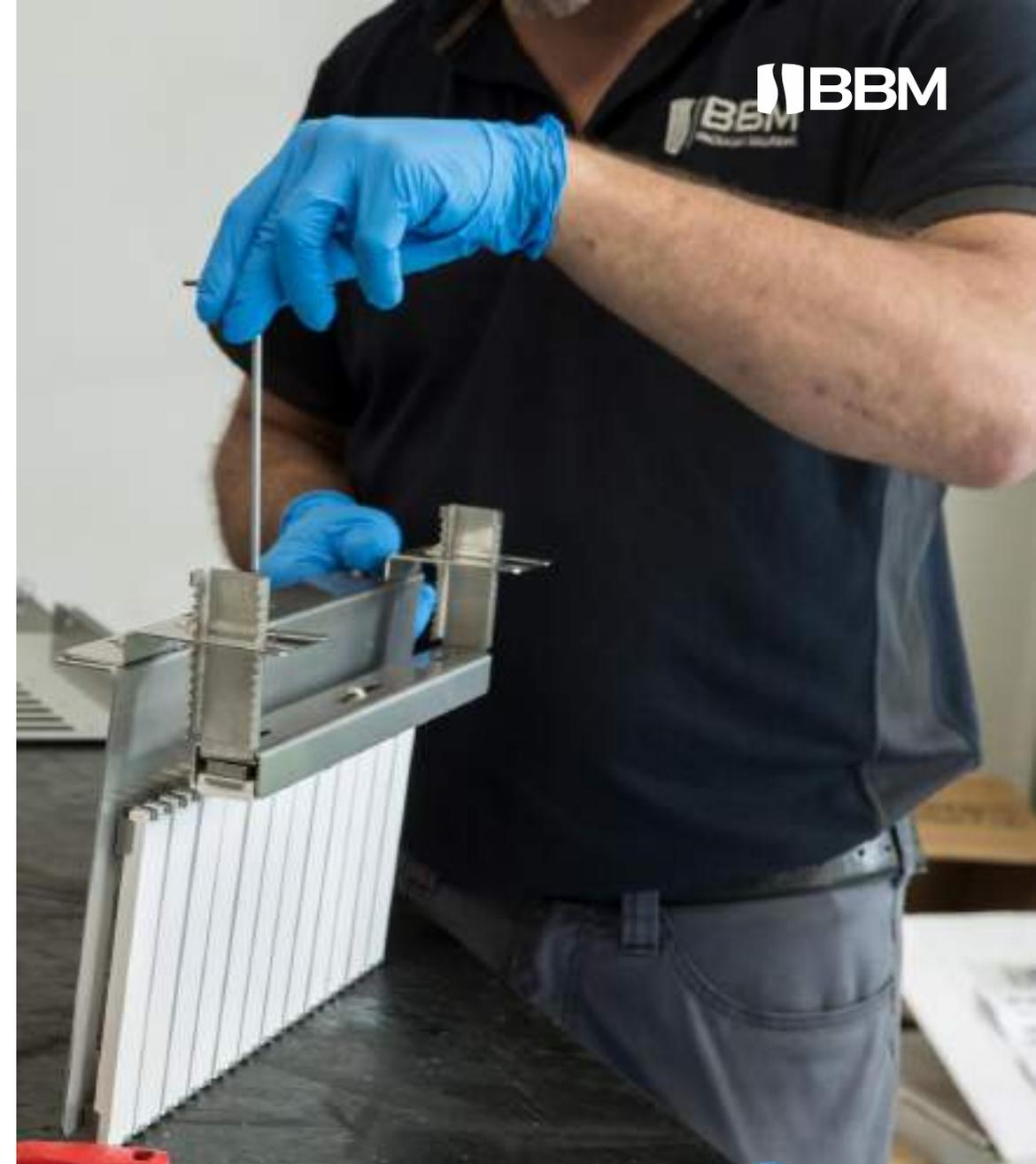
**Independent and self-cleaning**

**Prevent bottle neck deformation**

**Applicable on blow molding machines of the main brands**

**Return on investment in less than 6 months**

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BLOW MOLDING MACHINES - BBM



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SAVE ENERGY

# LOWERING TEMPERATURE

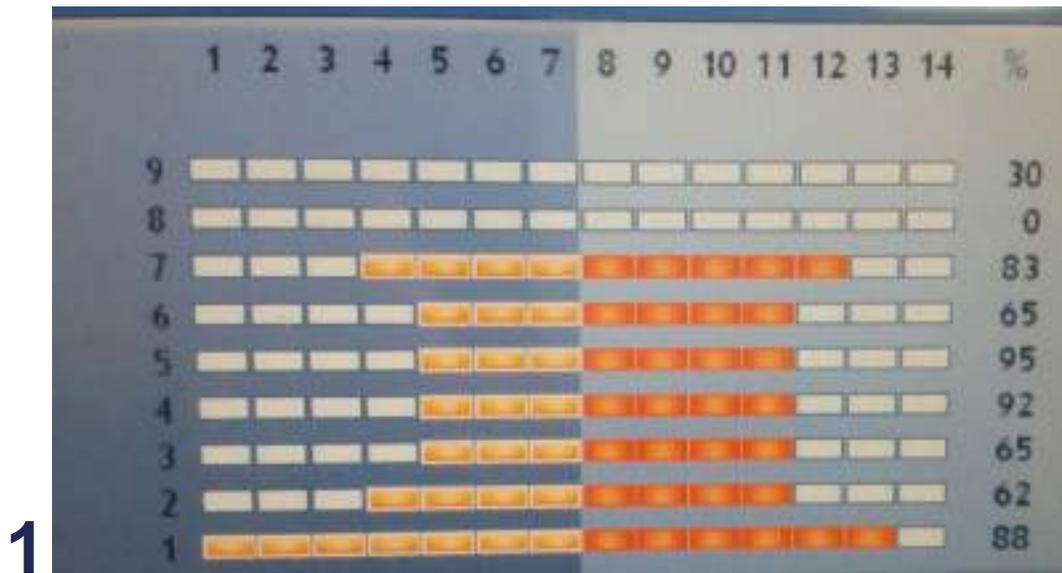
Lowering the temperature of the mold-holder spindle in the бага area, thus, preventing bottle neck deformation



# ENERGY SAVING EVALUATION FOLLOWING INSTALLATION OF CERAMIC PANELS

We report an actual evaluation of energy savings following BBM's installation of ceramic panels on a **SIDEL Universal 2 10/14 Blow Molding Machine** with 14 furnace modules, which was blowing a **1.5-liter size preform**.

In situation (1), corresponding to a stage where BBM ceramic panels have not yet been installed, given that the first row is 3000W and the subsequent 2500W, the lamp absorption, thus calculated\*, is **135,115 W**.



Lamp absorption calculation*	
Row 9	0 W
Row 8	0 W
Row 7	$2500w \times 4 + 2500 \times 5 \times 0.83 = 20375w$
Row 6	$2500w \times 3 + 2500 \times 4 \times 0.65 = 14000w$
Row 5	$2500w \times 3 + 2500 \times 4 \times 0.95 = 17000w$
Row 4	$2500w \times 3 + 2500 \times 4 \times 0.92 = 16700w$
Row 3	$2500w \times 3 + 2500 \times 4 \times 0.65 = 14000w$
Row 2	$2500w \times 4 + 2500 \times 4 \times 0.62 = 16200w$
Row 1	$3000w \times 7 + 3000w \times 6 \times 0.88 = 36840w$

1

CERAMIC PANELS

The next image (2) shows the new lamp absorption, following the installation of the BBM ceramic panels, which allowed a new format recipe to be reworked.

The result is a total lamp absorption **83,175w**.

2



Energy saving calculation*	
Row 9	0 W
Row 8	0 W
Row 7	$2500w \times 2 + 2500 \times 2 \times 0.65 = 8250w$
Row 6	$2500w \times 3 + 2500 \times 3 \times 0.65 = 12375w$
Row 5	$2500w \times 2 + 2500 \times 2 \times 0.8 = 9000w$
Row 4	$2500w + 2500 \times 0.78 = 4450w$
Row 3	$2500w + 2500 \times 0.8 = 4500w$
Row 2	$2500w \times 4 + 2500 \times 4 \times 0.64 = 16400w$
Row 1	$3000w \times 5 + 3000w \times 5 \times 0.88 = 28200w$

## RESULTS

Counting in hand: the total energy savings of the SIDEL Universal blower under consideration, expressed in Kw is:  $135115w-83175w/1000= 51.9 Kw$ .

Considering the current cost of energy, which is. **0.24 €/Kwh** and a use of the blower machine over a **24-hour time frame for 5 days a week**, the weekly energy savings corresponds to

$51.9Kw*0.24€/Kwh*24h*5= 1494.00 €$ .

This is equivalent to about **€ 5,980.00 saved in one month**; ROI (return on investment) is achieved within three to four months of the initial investment.

**1,5** | liters: the format  
**5.980** | €: the actual savings over one month  
**3** | months: the return on investment



# CASE HISTORY #1

A major customer who is a leading player in the pursuit of major technical-plant and sustainable production innovations relied on BBM's expertise to curb the energy consumption of blow molding machines.

**An example of ceramic application on a SIDEL SBO Universal 2 8/10 blow molding machine:**

Actual energy savings of 27% were measured with a special digital device.

The action of ceramic panels combined with other upgrades, such as lowering blowing pressures and air recovery, provides immediate and exponential savings.

UPGRADE CERAMIC PANELS	BEFORE	AFTER
Absorption Why/b	77,21 kW	57,31 kW
Pressure set	31 bar	24 bar
Preform temperature	103° C	93° C

**ACTUAL ENERGY SAVING IS 27%**



# CASE HISTORY #2

## CERAMIC PANELS AND LOWERING PRESSURES

Machine: Sidel S2 blow molding machine - year 2000

Initial blowing pressure: 31 bar

Final pressure after pressure lowering upgrade: 21 bar

## BENEFITS

1. ENERGY SAVING
2. Stable upstream pressure
3. Reactivation of pressure control for bottle rejection (solved problem of punctured bottles which did not allow continuous production)

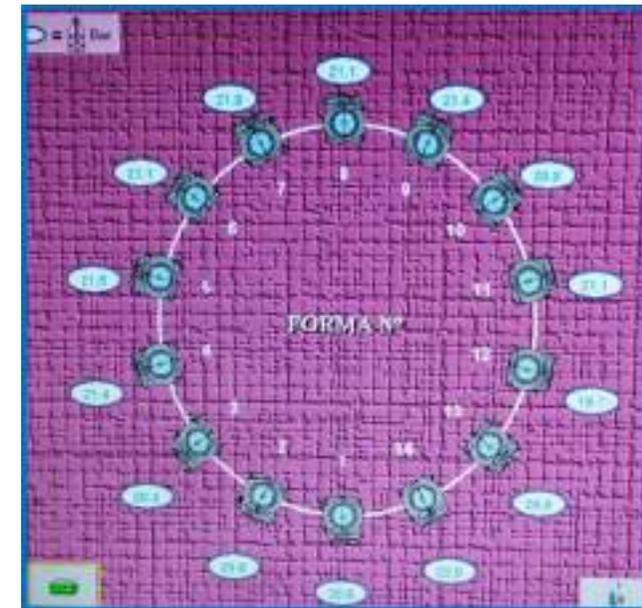
**UP-GRADE PANNELLI CERAMICI**  
Rilievi eseguiti a 16.000 b/h



	PRIMA (14000 b/h)	DOPO (16.000 b/h)
<b>ASSORBIMENTO Kw</b>	<b>Kw</b>	<b>Kw</b>
<b>PRESSIONE IMPOSTATA</b>	<b>31 bar</b>	<b>21 bar</b>
<b>TEMPERATURA PREFORMA</b>	<b>116 °C</b>	<b>116°C</b>
<b>TEMPERATURA FORNO</b>	<b>240 °C</b>	<b>230°C</b>
<b>AVVIAMENTO %</b>	<b>93%</b>	<b>50%</b>

Risparmio energetico dopo pannelli ceramici 43%

Risparmio energetico ottenuto sulle pressioni di soffiaggio 33%



# HOW WE WORK

At the service of your saving project



### The ideal mix

The combination of the three upgrades on the blow molding machines guarantees effective and consistent energy savings, to avoid waste in this period of rising energy bills



### Fast Interventions

Don't waste time: our specialized BBM technicians can reach your plant quickly and safely



### Certified Savings

We can put at your disposal a certification body, to have your savings quantified and be able to access calls for tenders and funding



### Assistance

BBM offers not only immediate technical support services, but also preventive maintenance programs to maintain the performance of your equipment over time



## WE WORK WITH LEADING PREFORM SUPPLIERS

This allows us to always be at the forefront of resins and recipes, as well as allowing us to solve any problems related to preforms quickly and effectively. Our technicians are able to understand if the problem is related to the preform or to the machine, which may not be properly regulated. We work together to increase everyone's potential in order to achieve the best results.



**Pizzorni**



*garda plast*



## BBM ALONGSIDE LARGE COMPANIES

**From the medium-small producer to the large multinationals, for us the satisfaction of each of our customers is fundamental.**

Il nostro obiettivo è la piena soddisfazione di ogni cliente. Partiamo da queste premesse per costruire collaborazioni durature nel tempo, che sappiano fully repay our customers for choosing BBM as a technical partner for their projects. Our references range in different sectors: from the soft drinks sector to that of water, from that of beer to that of wine, from that of tomato and milk to that of pet food and chemical products.

**Refresco**



**GRANAROLO**



**THANK YOU.**

**BBM Service s.r.l.**

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