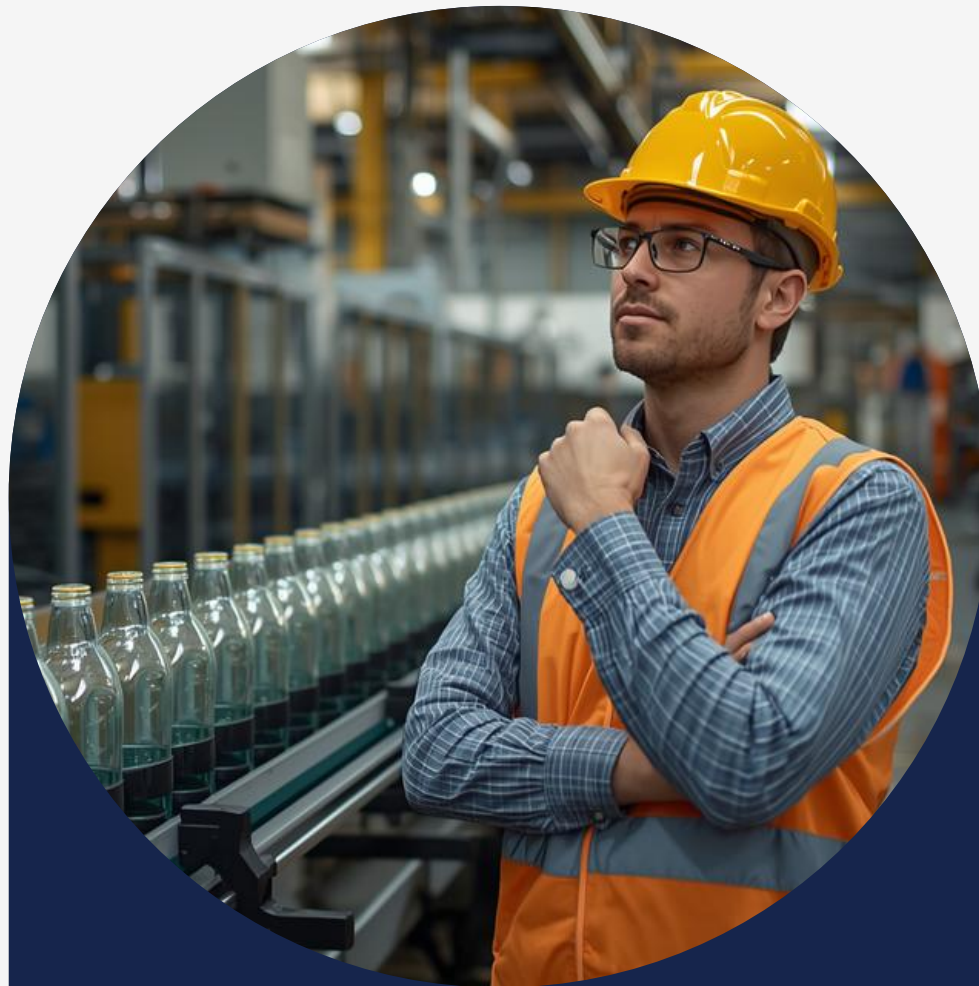


# 2 TO 6 MONTHS ROI

How precise **blank temperature control** unlocks **efficiency** and **safe lightweighting**.



## PARADOX OF GLASS FORMING : You are controlling temperature without measuring it

The blank side : most critical, least controlled

- ⚙️ No real-time measurement
- ⚙️ Operator-based decisions
- ⚙️ High cycle variability

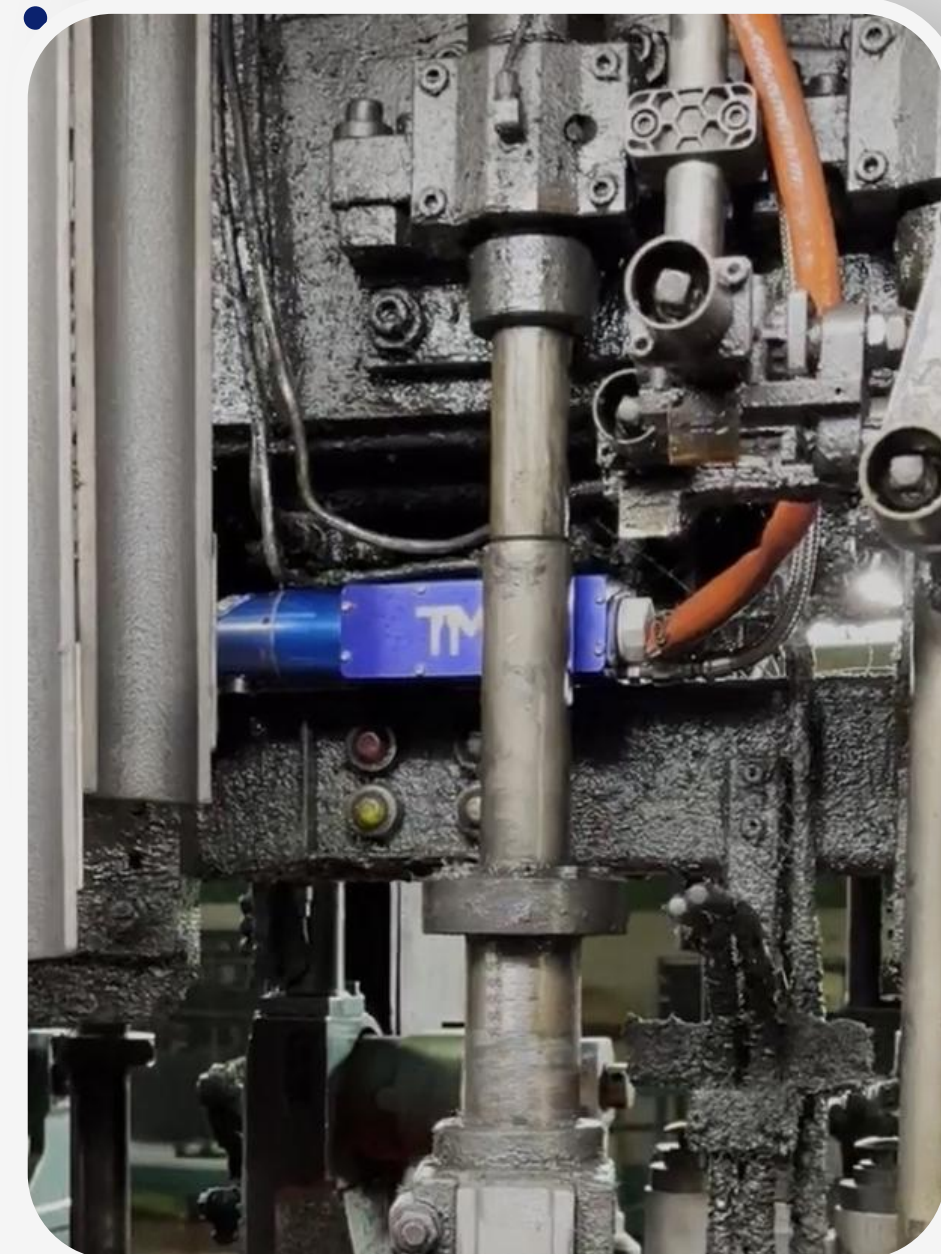
## BLANKONTROL SOLUTION : Real-time temperature control

- ❖ Molds and plungers Monitoring
- ❖ Every section every cycle
- ❖ Ideal Angle



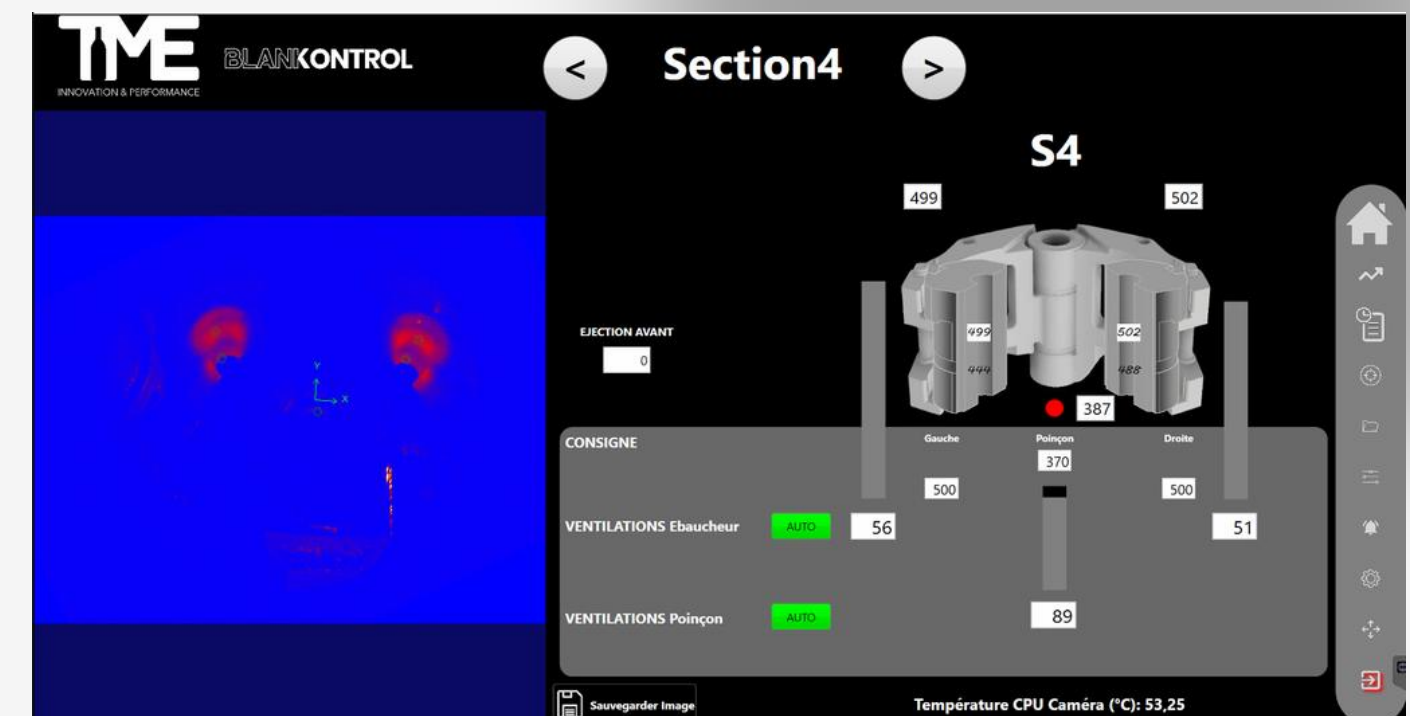
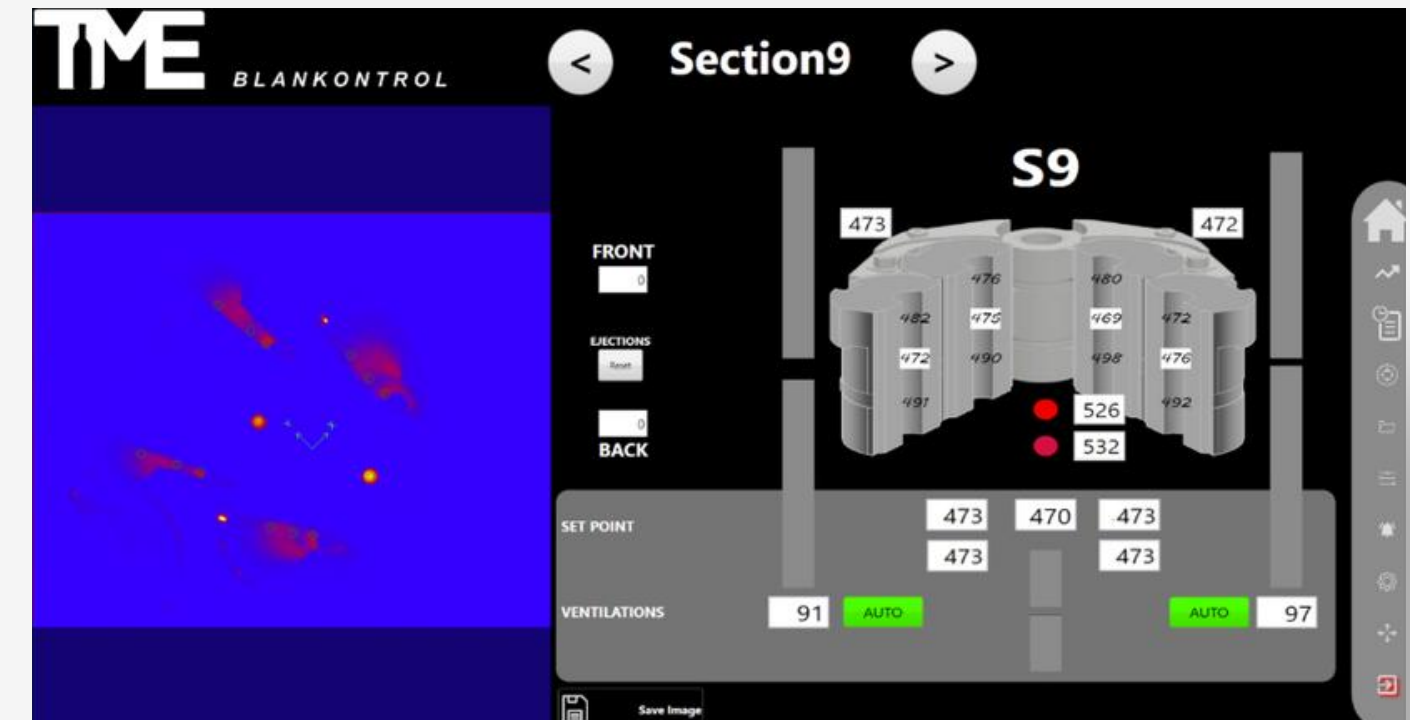
## BLANKONTROL SOLUTION : Reliable Measurement and regulation

- ✦ Maintenance Free : No dirtying
- ✦ No recalibration needed  $\pm 2^{\circ}\text{C}$  Accuracy

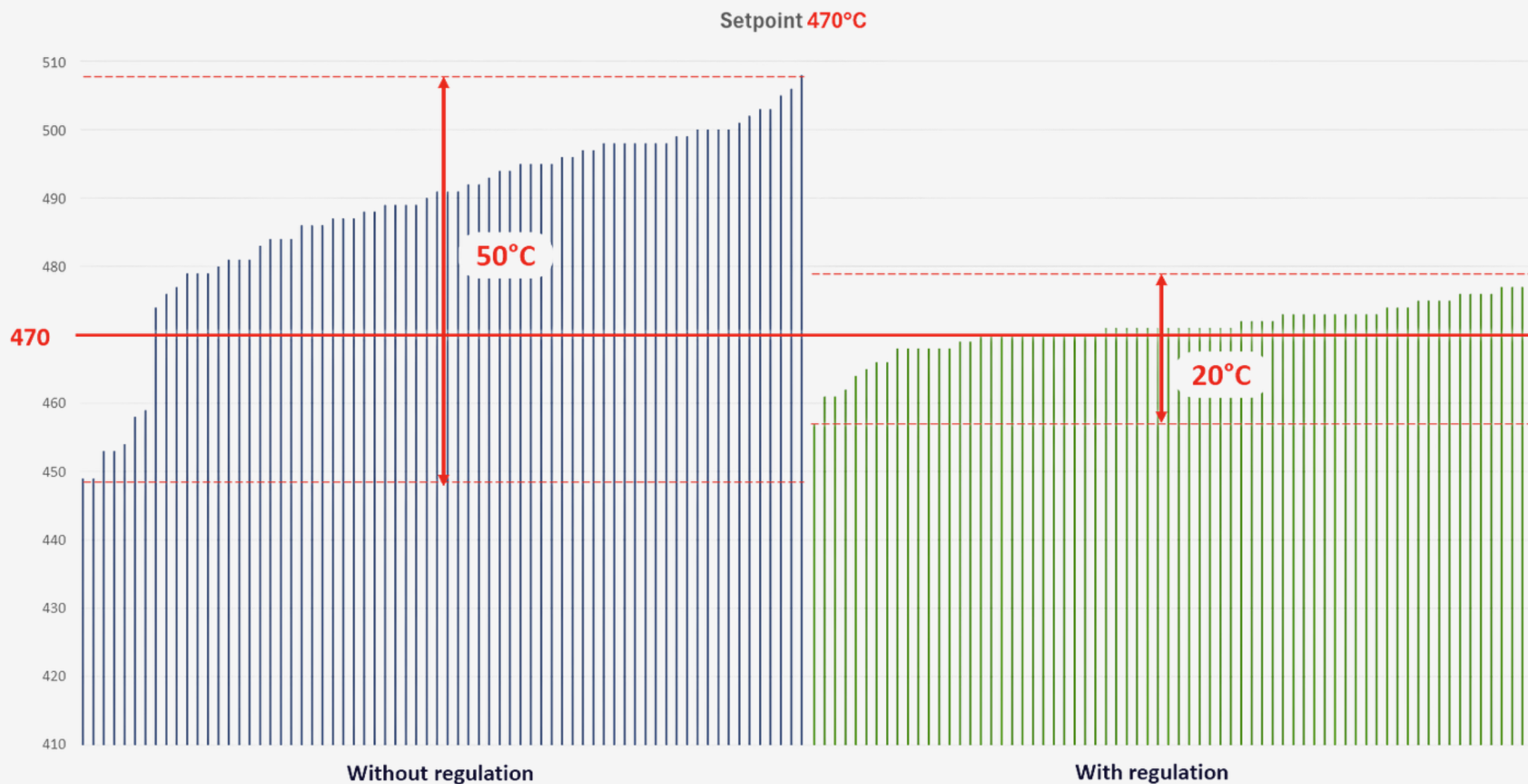


## BLANKONTROL SOLUTION : Compatible all type of coolings, all machines

- Excellent regulation adaptable to all type of cooling
- Compatible to all machines, all timers

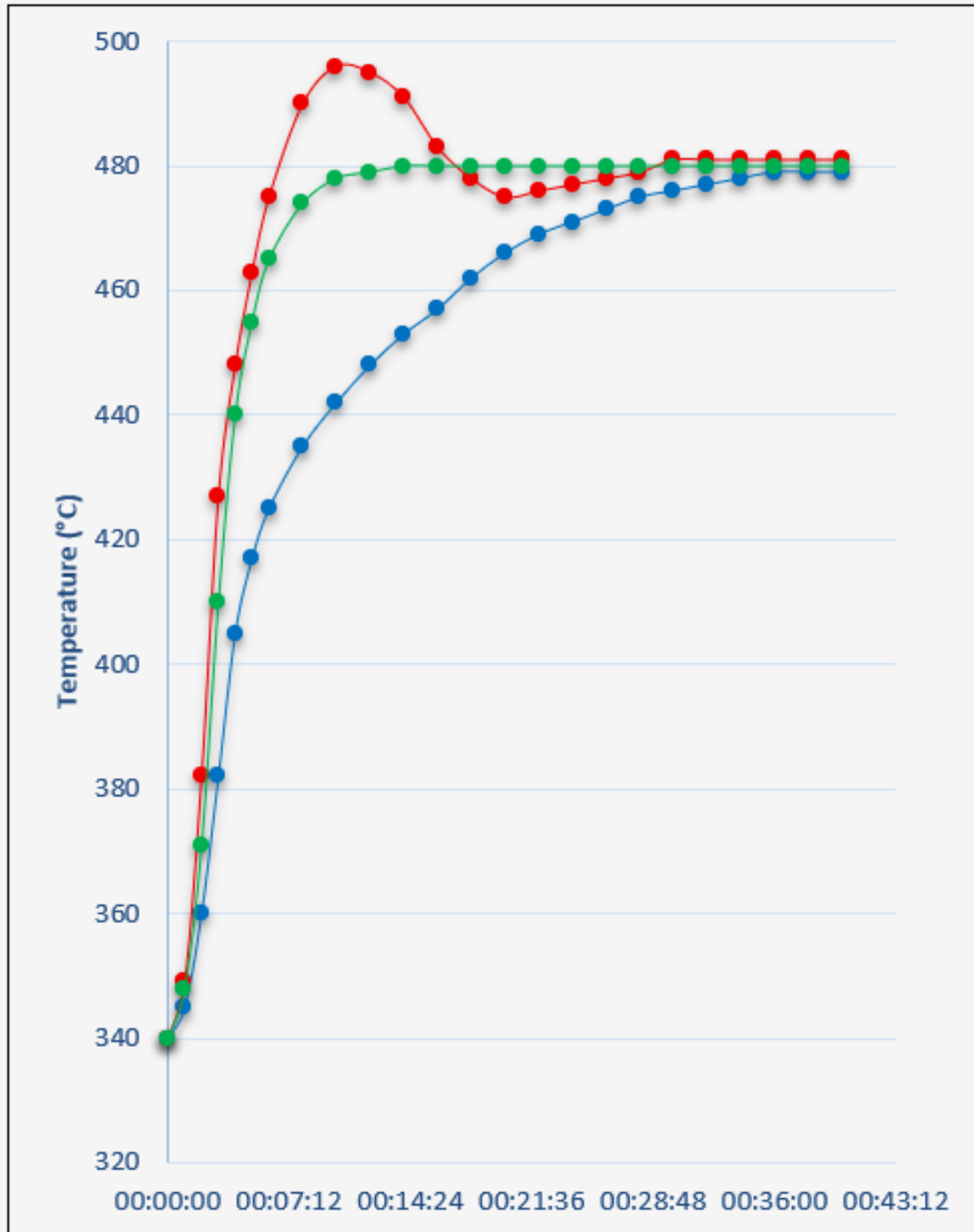


# REDUCES YOUR THERMAL DEFECTS : Process in under control



- Reduces defects on glass distribution, skin
- Direct impact of a minimum 3 points of yield
- Reduces the sorting costs





## BRINGS BETTER OPERATIONS

Temperature is stabilized, cruise control is on

- ✦ Quicker warm up of the section
- ✦ No overshoot
- ✦ Divides the need of mold changes (and then reparation) by 2
- ✦ Put the focus of the glassmen on other topics

## GIVES QUALITY INSURANCE

**Certify to the end customer that no spikes were produced**



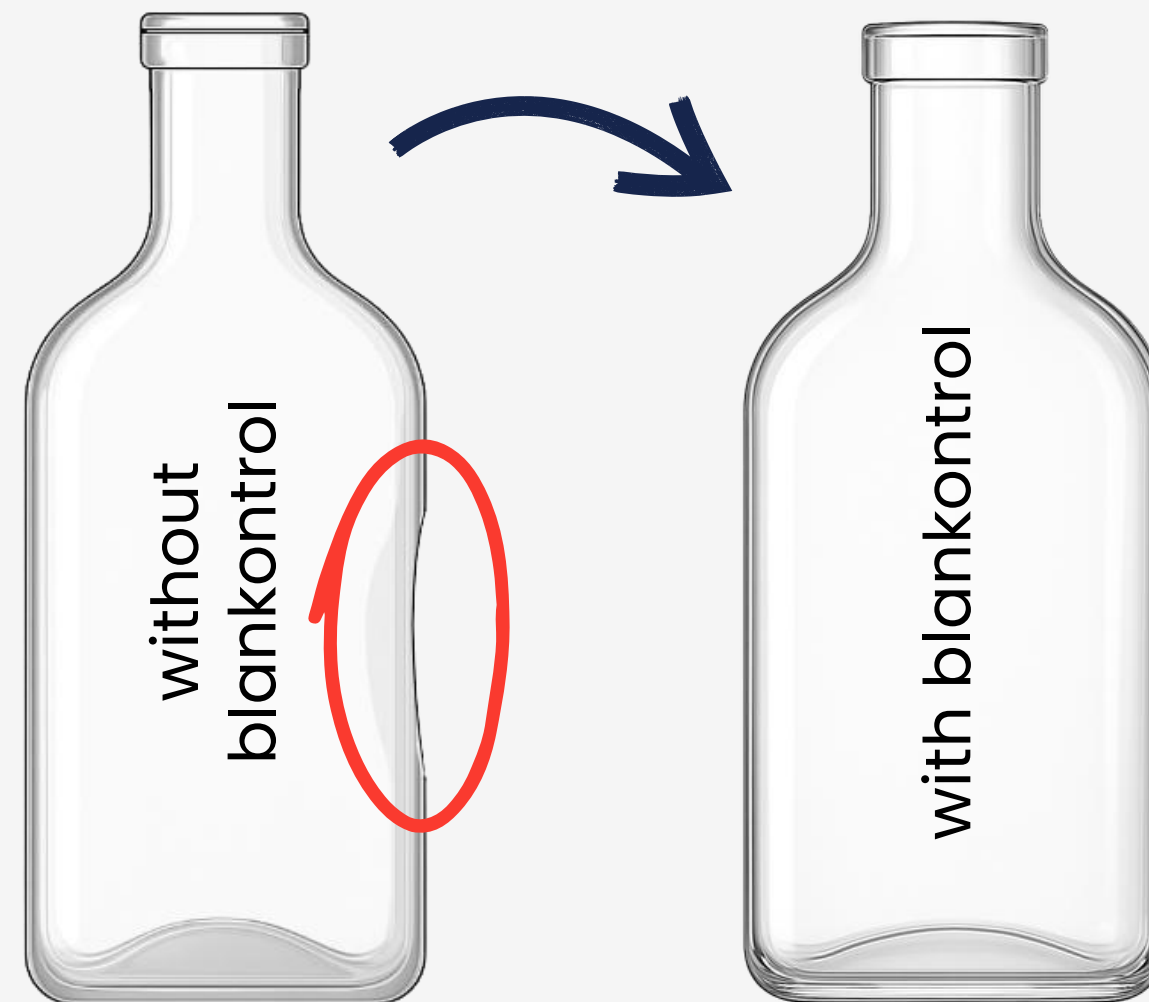
## CO2 GAINS

All defective bottles avoided is energy savings



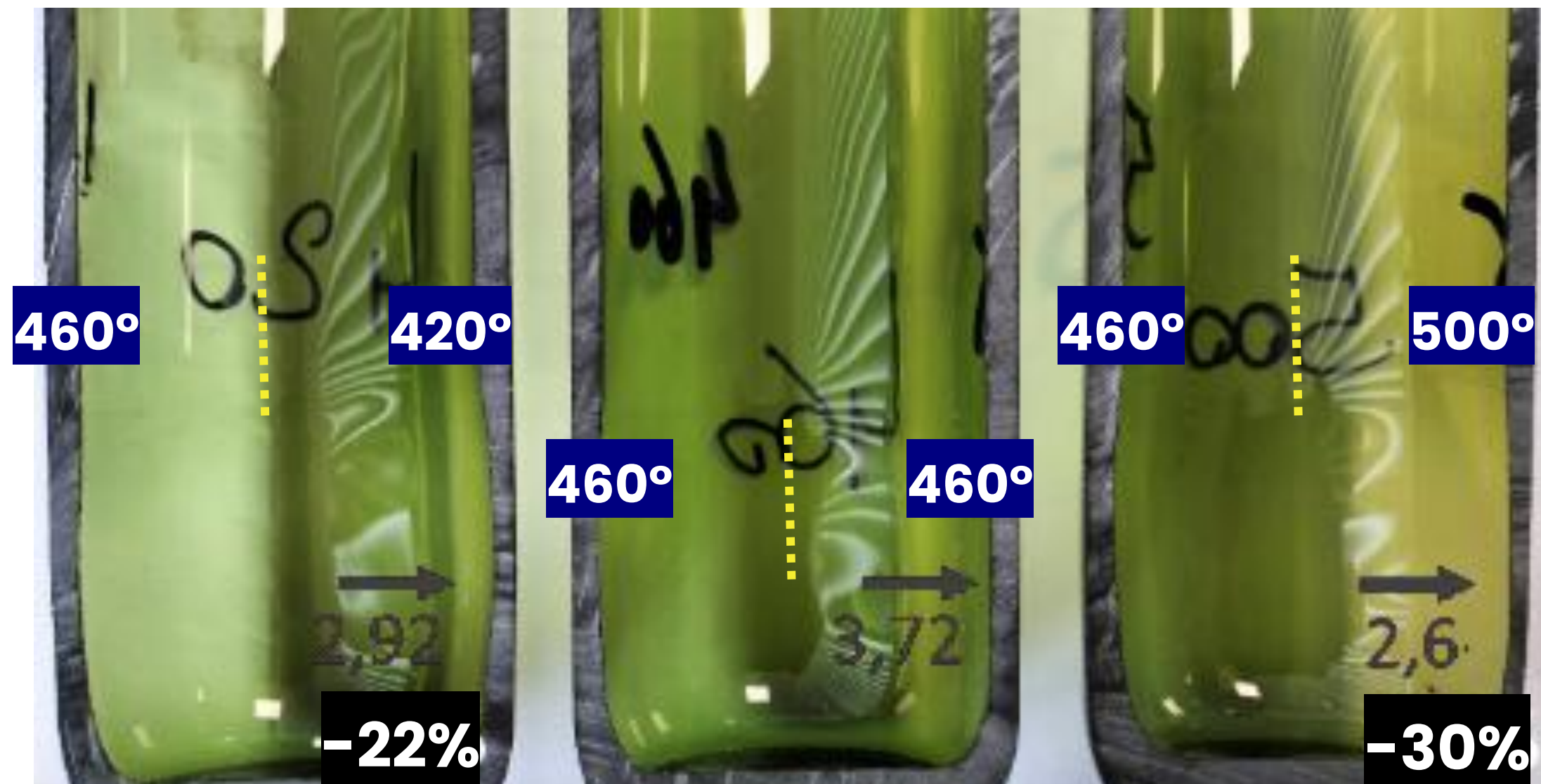
# ENABLE SAFE LIGHTWEIGHTING

Even glass distribution allows lightweighting without breakage risks



# ENABLE SAFE LIGHTWEIGHTING

Even glass distribution allows lightweighting without breakage risks



## BUSINESS CASES BASED ON REAL LIFE EXPERIENCE

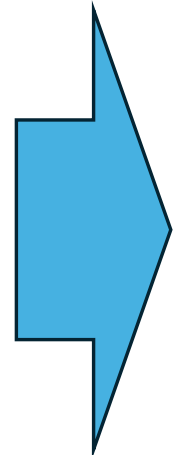
Type of Gains / Sectors	Perfume	Spirit	Beer	Wine	Pharma
<b>Efficiency</b>	+4,1%	+3,5%	+4,4%	+2,9%	?
	246 kUSD	468 kUSD	657 kUSD	406 kUSD	
<b>Sorting</b>	158 kUSD				
<b>Lightweighting</b>				-7%	
				987 kUSD	
<b>Quality Insurance (No Spikes, No Glass String)</b>					Must Have
<b>Total Gains /y</b>	404 kUSD	468 kUSD	657 kUSD	1 393 kUSD	?
<b>ROI in months</b>	<b>6</b>	<b>5</b>	<b>3,5</b>	<b>2</b>	<b>Must Have</b>

**Sub-1-Year ROI — Confirmed by Real-World Customer Result**

# MAKE YOUR OWN CALCULATION

## Check with your own data what will be your ROI

TME			
Calculation of Blankontrol savings			
Input data	Output data		
Number of sections	10	Average Yield after Blankontrol	92,1%
Tonnage (gross) per day	90	Savings in Defects(per year)	\$ 747k
Average Yield before Blankontrol	88,0%	Restart Savings (per year)	\$ 14k
Glass packed Ton Cost	\$ 500	Lightweighting gain (per year)	\$ 723k
Nb of days running/year	365	Resort savings (per year)	\$ 0k
% Thermal defects	5%	CO2 Savings (per year)	\$ 90k
% Savings on the thermal defects	80%	Nb of Tons of CO2 savings (per year)	1 187
Number of sect. stops per day*	12		
Cycles saved at restart	8		
Number of cavity	TG		
Average weight of bottle (in g)	260		
Lightweighting contribution	5%		
Ton of CO2 per producted ton	0,426		
CO2 Ton Cost	\$ 76		
Resorting cost per month	\$ -		
% Saving on resorting	25%		
		<b>Total Savings per year</b>	<b>\$ 1 573k</b>
		<b>ROI number of months</b>	<b>2</b>



**+ ONE CAMERA BY SECTION IN THE HEART OF THE MACHINE**

**+ IDEAL ANGLE OF VIEW TO CONTROL PERFORMANCE**



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