Cenomic Optima.

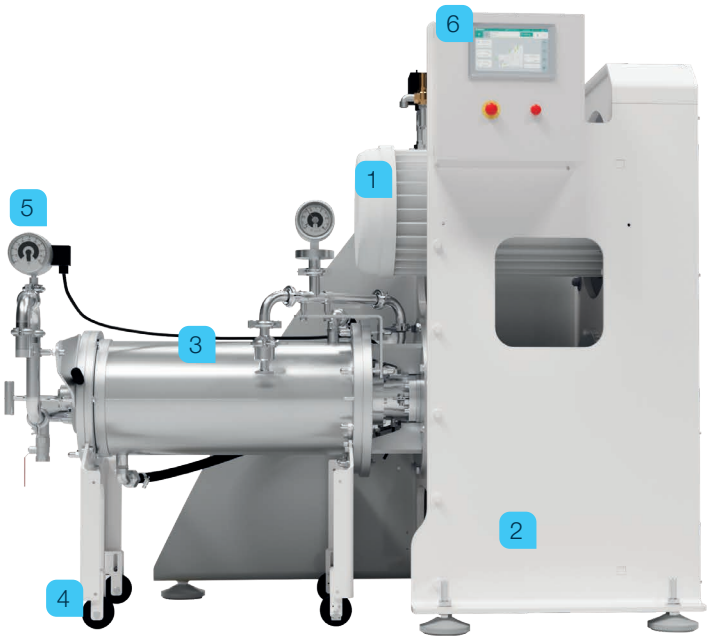
Your next-generation full-volume bead mill.

Innovations for a **better world.**

BÜHLER

Next generation full-volume agitated bead mill. **25%-50% higher productivity.**

The new Bühler Cenomic Optima takes agitated bead mill technology to the next level, bringing you higher flow rates, higher power inputs and improved cooling to deliver up to 25%-50% higher productivity overall.



1. Higher power input for faster processing
2. Proven Cenomic machine frame
3. Improved grinding chamber geometry
4. Moveable process chamber
5. Product outlet with product temperature sensor
6. Different control options available

Benefits

- 25%-50 higher productivity to reach your desired specific energy faster
- Expect higher flow rates and improved efficiency with the same footprint
- Designed to keep products below temperature limits
- Minimize blockages and hydraulic packing, for smoother production

Introducing a series of technological advances. **For faster, smoother wet-grinding.**

The re-engineered Cenomic Optima offers a range of innovative technological improvements to speed up your wet grinding operation without compromising product quality.

Additional discs
Clever configuration within the chamber allows the Cenomic Optima to offer 37.5% more grinding disc surface, for more efficient bead activation.

More powerful drive unit
The new 30 kW drive unit allows you to increase the power input and thus reach the required specific energy for optimal grinding faster. This can improve productivity by up to 25%-50%.

Ceramic inner liner
A new ceramic liner ensures your products stay cooler during grinding. This allows you to use the higher power input without breaching the product's temperature limit.

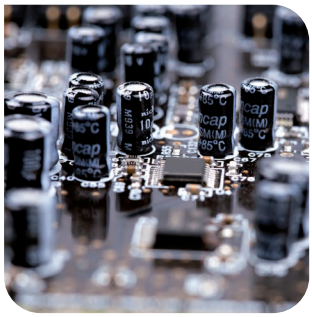
Larger screen diameter
A larger screen diameter reduces pressure within the chamber and enables at least 25%-50% faster flow rates. This speeds up your process and avoids unwanted hydraulic packing.

Serving a diverse range of applications.

The Cenomic Optima is designed for grinding low to medium viscosity products from submicron (100nm) to micron (50µm) particle sizes, in a broad range of applications:

Printing inks
Sheet-fed, web offset, screen, inkjet, packaging and security inks

Solar
Silver, aluminum, titanium dioxide and glass solder pastes.



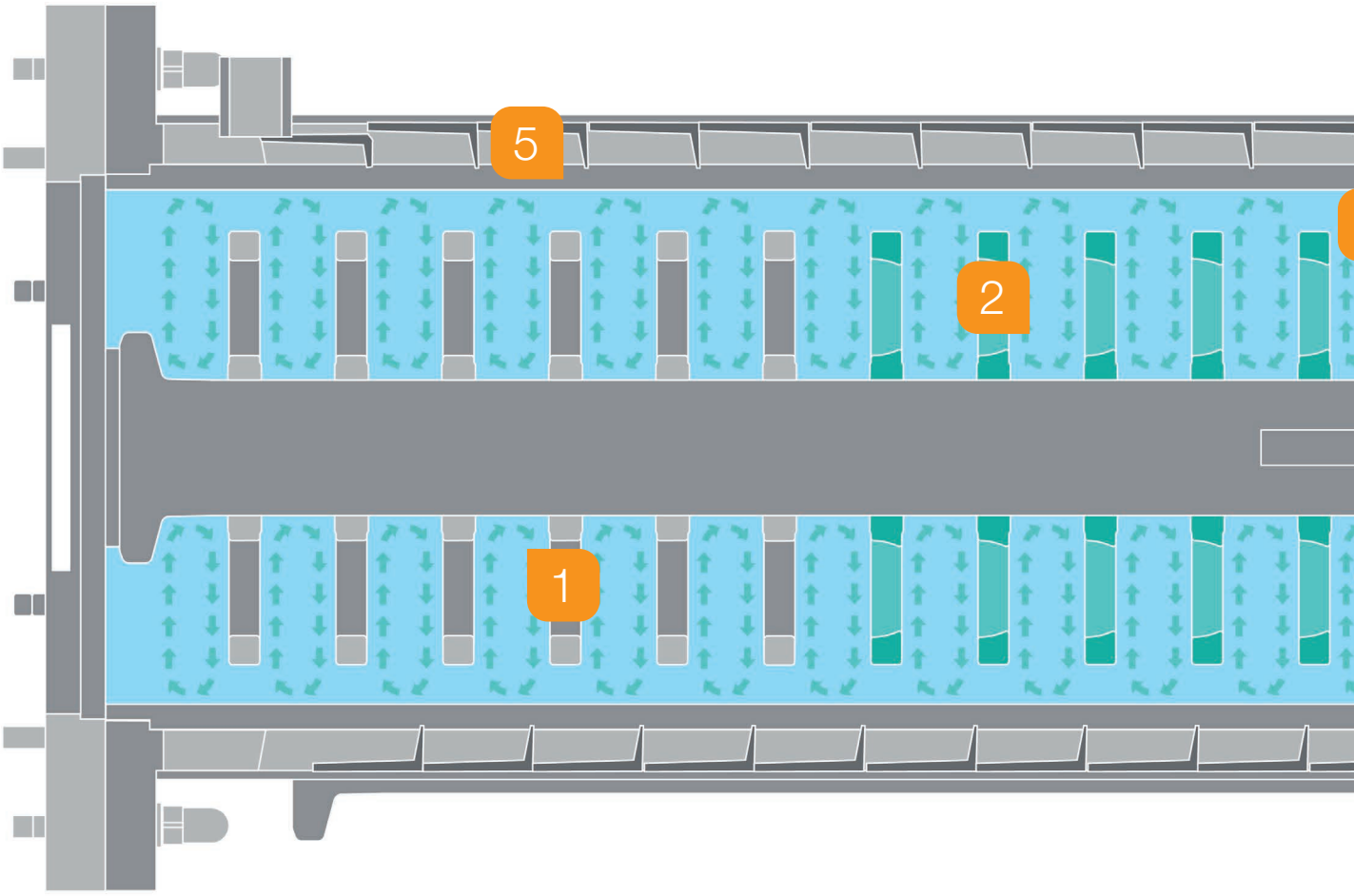
Electronics
Glass, phosphor and metal pastes, and printed circuit boards.

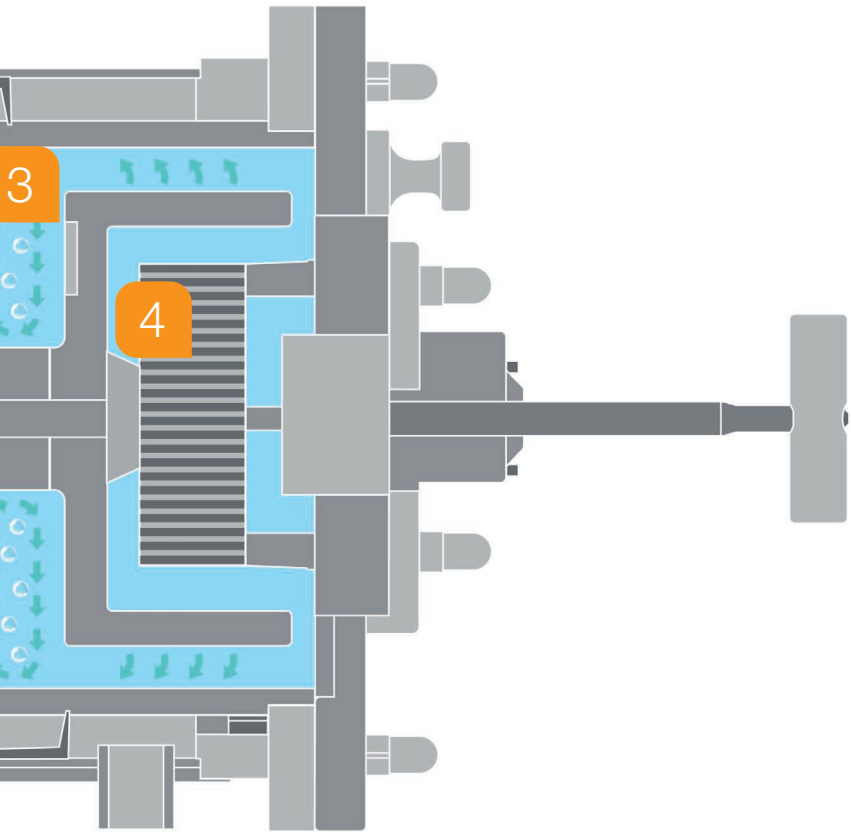
Other
Cosmetics, carbon nano tubes, lubricants, sealing pastes and artist colors.

Evolution of a proven mill.
Optimal performance from the same footprint.

Building on decades of reliable service, the Cenomic Optima offers a powerful range of improvements within the same machine footprint, making it easy for you to replace or upgrade existing machines.

Bühler consulting and engineering services can work with your team to help you plan the best possible implementation for your application.





Available as an Upgrade kit
As well as new machines, Cenomic Optima can be delivered as an upgrade kit to your existing Cenomic 3,
20 liter machine (with other models soon to be released).

The upgrade kit includes:

- New discs
- Ceramic inner liner
- Larger screen
- Optional 30 kW drive unit

1 **More discs within the same chamber**
Deliver better bead activation.

2 **Reverse feeding EcoMizer agitator discs**
Reduce bead compression.

3 **Improved circulation**
Speeds up the grinding process and eradicates hydraulic packing.

4 **Larger screen diameter**
Enables higher flow rates with minimal maintenance.

5 **Ceramic inner liner**
For better cooling.

Cenomic Optima in action.
Cooler, faster and more efficient.

Solvent-based packaging ink

With up to **nine times higher thermal conductivity compared to steel** the ceramic inner liner can cope with a higher power input without over-heating your products.

This case study with solvent-based packaging ink shows that with a stainless steel inner liner, it was almost impossible to reach the required target quality of < 10 microns without exceeding the temperature limit. With the ceramic inner liner, the target quality can be achieved with a product temperature almost 7°C lower. You could even increase rotor and pump speeds for higher productivity.

Solvent-based wood lacquer

Using the same ceramic inner liner in the Cenomic Optima and the original Cenomic 3, the new machine **delivers a 25% higher flow rate**, producing an additional 140 kg every hour.

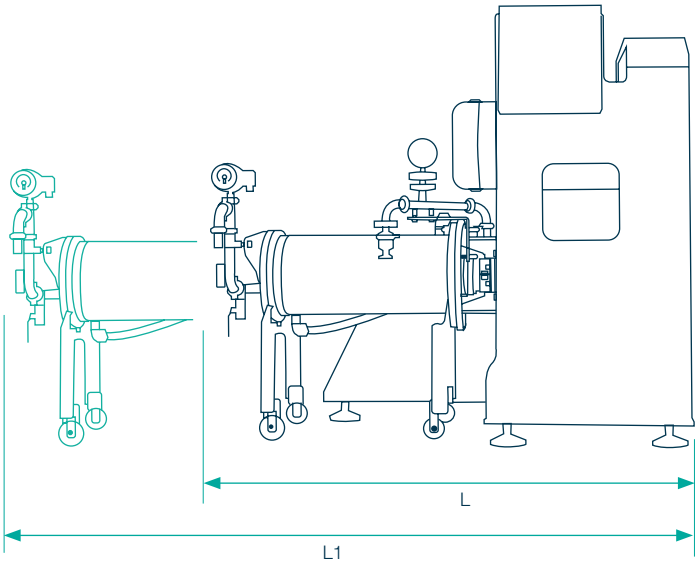
The redesigned process chamber of the Cenomic Optima achieves better bead activation, delivering improved product quality with similar process parameters. You could even increase productivity without reaching the product's temperature limit.

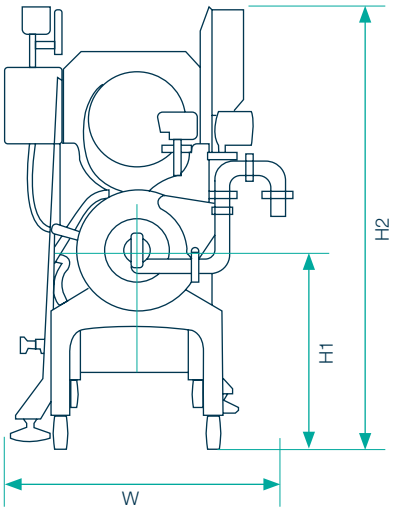
Water-based paper coating

Overall, the Cenomic Optima with its ceramic inner liner delivers a **40% higher flow rate** compared to an original Cenomic machine with a steel inner liner at the same rotor speed.

In this case study with water-based paper coating, the Cenomic Optima can accept a 39% higher power input. Thanks to the high cooling capability of the ceramic inner liner, the product temperature is 13°C lower compared to the original Cenomic 3. This allows an increase in productivity by at least 40%.

Technical data.
Cenomic optima.





		Cenomic Optima 3	Cenomic Optima 6	
Drive		30 kW	45 kW	
EcoMizer disc		DraisResist (standard) DraisElast - PU Silicon carbide Oxide ceramics	DraisResist (standard) DraisElast - PU Silicon carbide Oxide ceramics	
Stator tube		Silicon carbide (standard) DraisResist Stainless steel DraisElast Oxide ceramics	Silicon carbide (standard) DraisResist Stainless steel DraisElast Oxide ceramics	
Inner liner exchangeable		Yes	yes	
Volume DraisResist (metal) / Silicon carbide (ceramic)	Volume inner liner	30 l	68 l	Cenomic Optima 15 and 30 will follow (active chamber volumes 117l, 226l)
	Active Chamber volume	20 l	47 l	
Volumes DraisElast (metal-free)	Volume inner liner	29 l	65 l	
	Active chamber volume	18 l	45 l	
Volumes DraisElast (metal-free) / DraisResist (metal)	Volume inner liner	29 l	64 l	
	Active chamber volume	19 l	47 l	
SuperScreen		Stainless steel Ceramic	Stainless steel Ceramic	
Control system		Comfort Comfort-Touch (Asian only) Premium Premium PLUS	Comfort Comfort-Touch (Asian only) Premium Premium PLUS	
Execution		Non-Ex / Ex	Non-Ex / Ex	
Bead size		0.3-2 mm	0.3-2 mm	
Tip speed		~ 9.5-13 m/s	~ 8-13 m/s	
In-situ cleaning device		Standard	Optional	

[1] Without control cabinet, without beads. All data are approximate.
Technical alterations reserved.

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