



MicroMedia Invicta.
**The next
step-change
in bead mill
technology.**

Innovations for a **better** world.

BÜHLER

MicroMedia Invicta.

25% more efficient and 50% more productive.

The new MicroMedia Invicta brings you a step-change in bead mill technology, with innovative chamber design and an improved bead separator system that deliver remarkable wet grinding benefits.

25% increased efficiency *

In customer trials, Invicta has delivered the same high quality output using 25% less energy compared with the best available alternatives. And it achieves this from the same compact footprint in your manufacturing plant.

50% increase in productivity *

Smart new chamber design combines with improved bead separation technology to bring you 50% increase in productivity. Imagine how that could transform your production output.

100% increase in flow rates *

The new separation system significantly reduces blockages and pressure build-up. Together with the new process chamber design, this results in an average increase in flow rates of 100%. This enables you to achieve your desired particle size quicker, with less production interruptions and a smoother overall process.



*MicroMedia Invicta 3 compared to MicroMedia X3



Test Invicta in our application centers

Come to one of our worldwide application centers to test Invicta with your specific product.

Contact us: grinding.dispersing@buhlergroup.com

Designed for your application.

Performance benefits across the board.

Liquid packaging ink: double the productivity



MicroMedia X3 (0.3 mm beads)	MicroMedia Invicta 3 (0.3 mm beads)
<ul style="list-style-type: none"> – Specific energy input 300–450 kWh/t (depending on color) 	<ul style="list-style-type: none"> – Specific energy input 200–350 kWh/t <div>20–35% lower</div>
<ul style="list-style-type: none"> – Running time 6.5 h 	<ul style="list-style-type: none"> – Running time 3.5 h <div>45% shorter</div>
<ul style="list-style-type: none"> – Flow rate 500 kg/h 	<ul style="list-style-type: none"> – Flow rate 1.500–2.000 kg/h <div>200–300% higher</div>

Automotive coating: 30% more efficient



MicroMedia X3 (0.5 mm beads)	MicroMedia Invicta 3 (0.5 mm beads)
<ul style="list-style-type: none"> – Specific energy input 100–150 kWh/t 	<ul style="list-style-type: none"> – Specific energy input 70–100 kWh/t <div>30% lower</div>
<ul style="list-style-type: none"> – Running time 3.0 h 	<ul style="list-style-type: none"> – Running time 1.5 h <div>50% shorter</div>
<ul style="list-style-type: none"> – Flow rate 3000 kg/h 	<ul style="list-style-type: none"> – Flow rate <6.500 kg/h <div>120% higher</div>

Suitable for a broad range of applications, including:



Protective coatings



Electronic materials



Battery materials



Agrochemicals

MicroMedia Invicta process chamber. **Improved design.**



The key to Invicta's unparalleled process performance is its unique new process chamber design and the improved bead separation system.

Unique process chamber design saves production costs

Years of research and development combined with customer experience gathered from thousands of different wet grinding applications around the world has resulted in a new geometric design within the process chamber.

Invicta now delivers the same MicroMedia high quality, using significantly less energy. And although the chamber is slightly longer, it still fits the same footprint on your factory floor.

New bead separation system creates a more reliable process

At the same time, the re-modelled bead separation system and a new screen design reduce blockages and speed up flow rates. As well as helping you to achieve your target particle size faster, this also assures you of improved process safety, with maximum reliability.



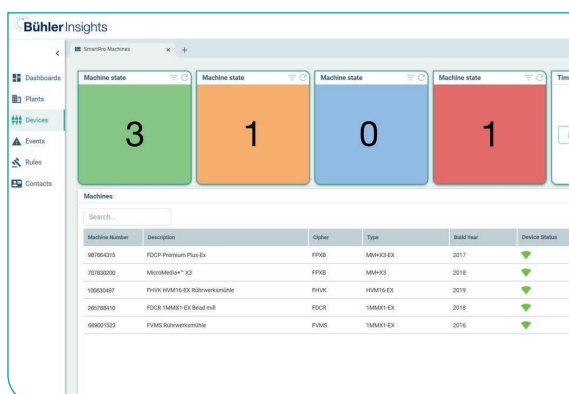
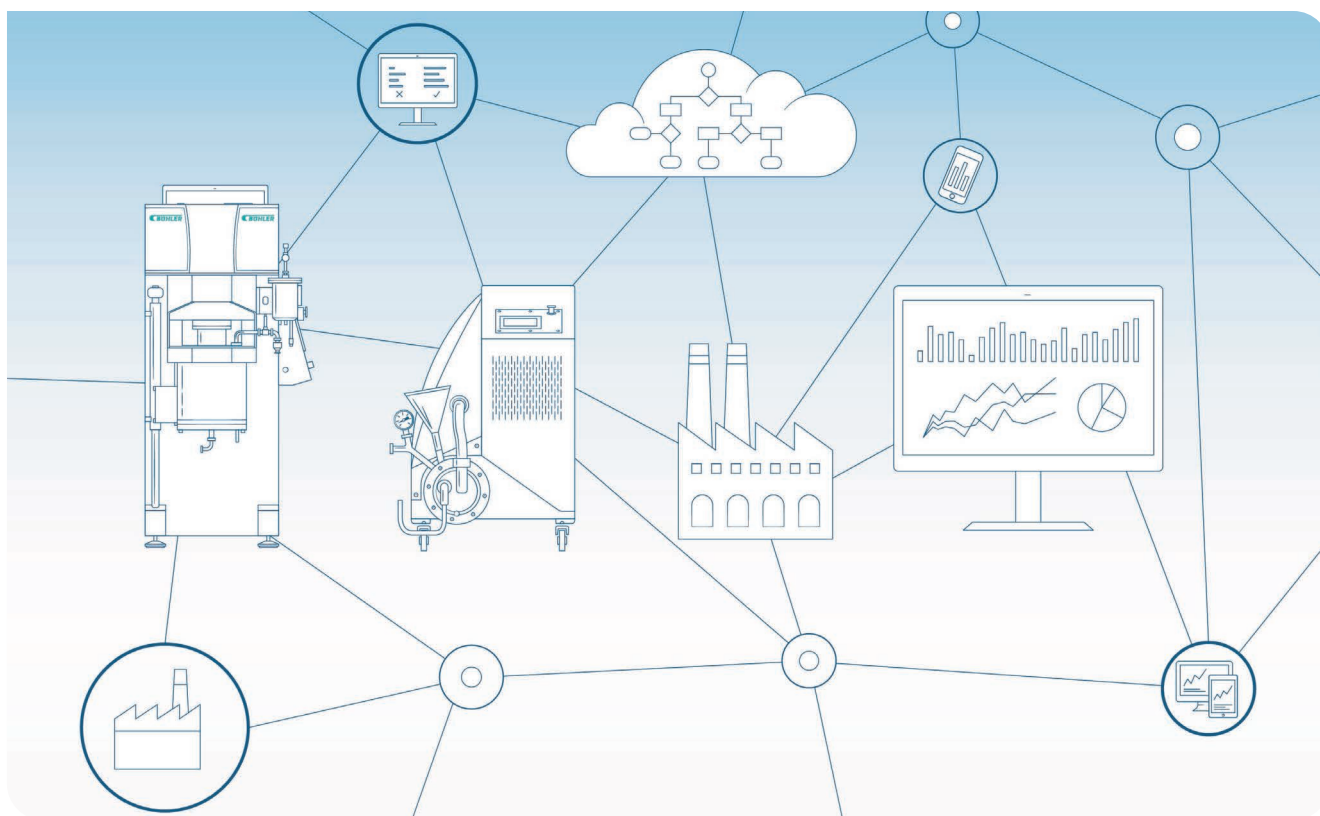
Retrofit option for existing customers

Invicta has been designed within the existing SuperFlow and MicroMedia framework, giving you the option to upgrade without having to replace your entire system.

Ready for the future.

Digital control and IoT capability.

Invicta's integrated digital control gives you all the operational flexibility you need for quality production. You can choose any level of process automation too, from a convenient entry-solution with manual operation, to fully integrated plant control. Our Bühler Insights solution opens up new possibilities for process digitalization.



Bühler Insights

Bühler Insights is our solution to digitalize the wet grinding process. It allows higher traceability, better process control and benchmarking, which results in significant optimization of production. Secure cloud technology allows access to process data, anytime and anywhere.

MacroMedia and MicroMedia Invicta. A truly unbeatable duo.



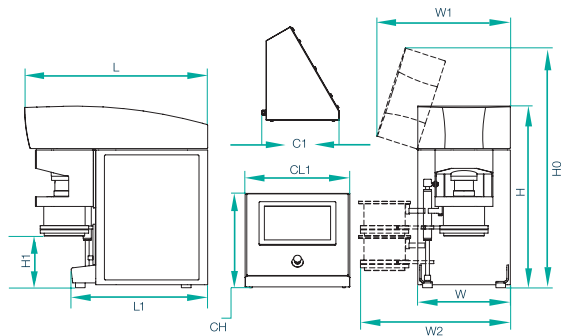
MacroMedia 6

MicroMedia Invicta 3

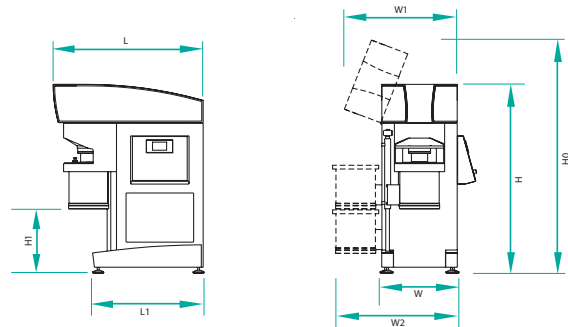
- 1 Dosing of solid and liquid materials in the mixing tank
- 2 Circulation between MacroMedia and the mixing tank
- 3 Transfer from the mixing tank to the recirculation tank via MacroMedia
- 4 Circulation between MicroMedia Invicta and recirculation tank
- 5 Transfer from the recirculation tank to the let-down tank via MicroMedia Invicta
- 6 Addition of liquid components and transfer to the next production step

Technical data.

Bead mill MicroMedia Invicta.



MicroMedia Invicta 1



MicroMedia Invicta 3 and 4

		Invicta 1	Invicta 3	Invicta 4
Drive [kW]		5.5	45–55	110
Active volume of process chamber [l]		1.6	20	40.0
Bead separation	centrifugally with following protective screen	●	●	●
Applicable diameter of beads [µm]		20-800	20–800	50–800
Flow rate [l/h] up to	depending on viscosity, material and diameter of beads and pump	600	8000	15000
Cooling	outer stator	●	●	●
	bottom of stator	–	●	●
	inner stator	●	●	●
	rotor (DraisResist)	–	●	●
Material rotor	DraisResist	●	●	●
	Polyamid	●	●	●
Material stator	DraisResist	●	●	●
	Ceramic SSiC / SiSiC	●	●	●
Lifting device for grinding vessel	hydraulic hand pump	●	●	●
Dimensions [mm]	H	943	2120	2997
Machine	H0	1244	2615	3569
	H1	268	720	1062
	L	949	1645	2250
	L1	707	1225	1567
	W	480	870	1050
	W1	693	1240	1605
	W2	777	1390	1554
HMI box Premium New	CH	351		
Dimensions [mm]	CL1	359		
	C1	403		
HMI box Premium Plus	CH	491		
Dimensions [mm]	CL1	543		
	C1	403		
Weight [kg]		280	1850	4350

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