

Batch vacuum processing plants Type zoatec[®] BG

for flexibility and productivity
in the food industry

BATCH SYSTEMS



For the mixing,
dispersion and
emulsification of
liquid and
semi-solid products

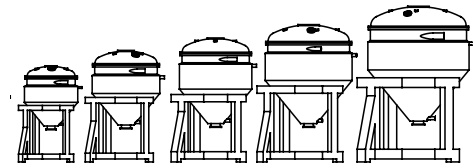
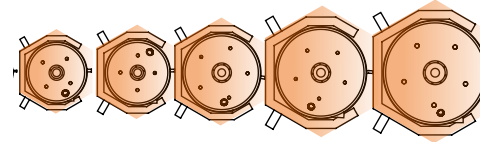


For liquid processes

AZO.
LIQUIDS

Your requirements – Our solutions

- Versatile plant
- Optimal space utilisation
- Easy compliance with food-related regulations
- Reliable batch times:
Calculation using optimised scale-up method
- Consistent product quality with every batch
- Easy cleaning and maintenance
- Low operating cost
- Easy operation



Maximum flexibility and productivity for liquid and semi-solid foods

We optimise your processes in our technical centre

Mixing, dispersion and emulsification are our passion

In our laboratory, we research and develop processing parameters and coating methods that ensure the best product quality and the shortest batch times.

Thanks to our many years of experience in producing sauces, mayonnaise, ketchup, soups, chocolate fillings, liquid doughs, marinades and dressings, we can help you find optimal solutions to your requirements.

The modular assemblies of the zoatec® BG vacuum processing plants are used in all situations where dry and liquid ingredients or combinations of liquid ingredients need to be mixed, dispersed or emulsified.





The well-conceived design of the AZO LIQUIDS processing plants sets it apart from all conventional systems

We assemble complete processing plants from standardised modules. These modules are independent of the processing parameters and can be adapted to your needs with flexibility.

We are experts at scaling-up from the lab to the production environment. Our plants are optimally tailored to your processes, your recipes, your premises and your operating sequences – because we listen to you.

This applies not only to the components, but also to the control software and the maintenance procedures.



Optimal cleanout is especially important for cost-effective production of small quantities

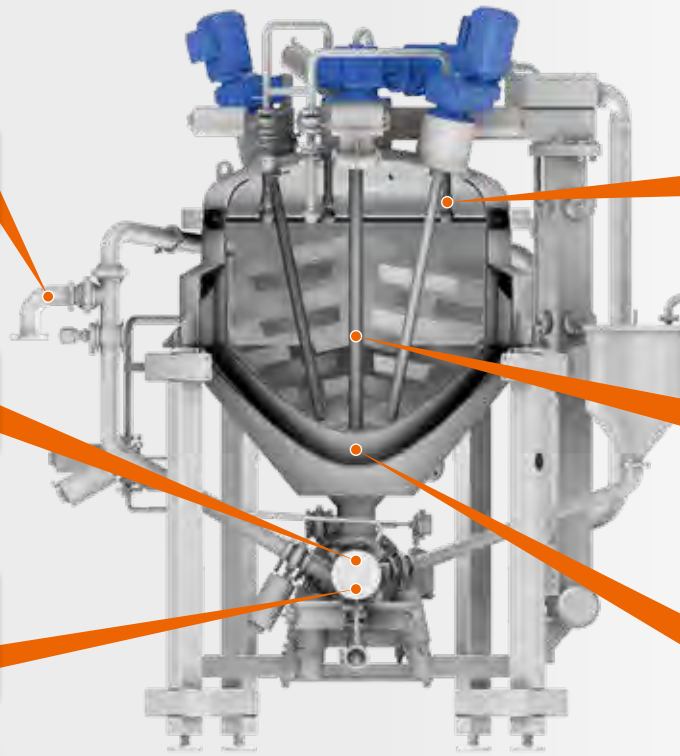
Spray nozzles for residue-free CIP cleaning without manual intervention

Homogeniser: Easy access and low wear by design

Blender combinations for optimal adaptation to product requirements

Patented pump mode for non-destructive mixing of chunky substances and fast product discharge

Insulated double jacket for fast heating and cooling



Our innovative design – Modular is better

Honeycomb machine frames

- Separate installation of processing and supply modules
- All components of the processing vessel are easily accessible for process handling, cleaning and maintenance
- Mounted on just four machine feet (four load cells with high read-out accuracy)

- Consistent frame shape for easy upscaling)
- Frame accepts every container shape without modification: Conical 80° Conical 130° Dished, etc.

Separation of processing and supply modules

- Separation of production and technical areas
- Also enables installation in constrained spaces
- Easy implementation of extensions and specific regulations (ATEX, sterile, hygiene, etc.)
- Avoids interference from the supply module when load cells are used on the processing module



Honeycomb machine frames

Processing and supply modules can be installed separate from each other



Versatile blender and mixer

- Combinations with a fixed baffle and up to two movable baffles are possible
- Other blending modules can be integrated (dissolver, rotor-and-stator homogeniser, etc.)
- Optimally adaptable to your product requirements
- Improved heat exchange
- More turbulence for shorter CIP process
- Shorter batch times

AZO LIQUIDS homogeniser

- Constant product feed to the tools results in a small droplet size with optimal distribution
- High pumping and shear speed for fast intake of large quantities of dry ingredients and reactive products
- Fast product venting
- The homogeniser pumps away from the shaft seal, resulting in less wear and longer seal life
- The tool and shaft seal can easily be removed from the front for inspection without major pipe dismantling effort
- High pump capacity enables use as a CIP pump



A variety of blender combinations enable optimal adaptation to the product



AZO LIQUIDS homogeniser – The innovative core element of the processing plant



Innovative homogeniser with patented pump mode

AZO LIQUIDS pump mode

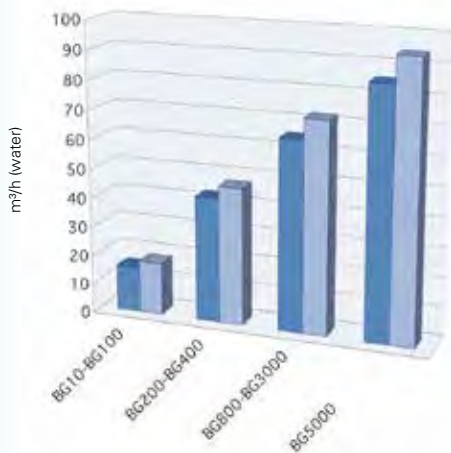
- Non-destructive blending of chunky materials (e.g. vegetable or fruit chunks) without attachment of an additional pump and piping
- Fast product discharge with large batch sizes and shear-sensitive products
- Better blending of large quantities of dry ingredients



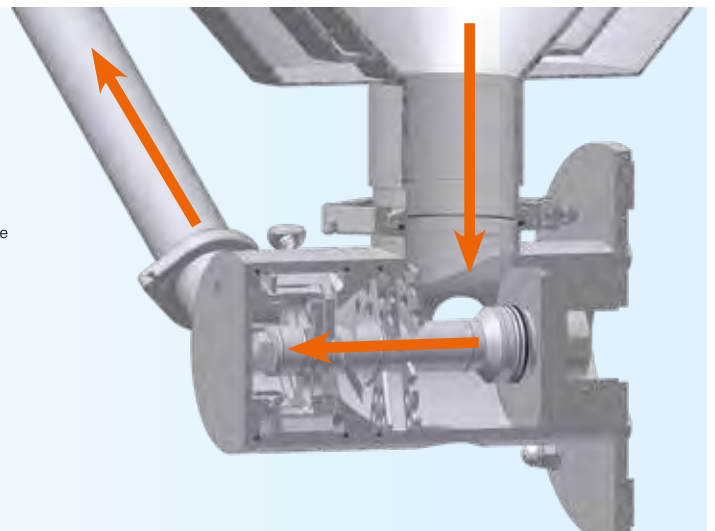
Dispersion mode



Patented pump mode



■ Throughputs Dispensing Mode
■ Throughputs Pump Mode



Homogeniser with flow direction away from the shaft seal



Type zoatec® BG vacuum processing plant

Best for batch – From quotation to automation

The zoamatic processing controller

The zoamatic controller is an expandable system that covers the full spectrum of customer requirements – from individual basic control functions to fully automatic recipe mode and even complete batch documentation.

Controller versions:

zoamatic smart

- Basic HMI solution for a pre-defined functional scope

- **zoamatic professional**
Modularly expandable design based on a SCADA system
- **zoamatic remote**
Full PLC controller with interface for connection to an external system
- **zoamatic lib**
For integration into another system

Dimensions sheet



Technical specifications of the zoatec® BG batch vacuum processing plant

BG Sizes: 10, 100, 200, 400, 800, 1,200, 2,000, 3,000, 5,000 (larger capacities available upon request)

Size	Minimum start volume [litre]	Maximum useful volume [litre]	Processing module			Weight [kg]	Supply Module			Weight [kg]
			A [mm]	B [mm]	C [mm]		D [mm]	E [mm]	F [mm]	
BG10	4	10	800	900	1.500	350	600	600	1.600	150
BG100	40	100	1.200	1.200	1.850	600	900	800	1.600	200
BG200	80	200	1.400	1.400	2.350	750	1.050	800	1.800	250
BG400	150	400	1.600	1.600	2.600	1.000	1.050	800	1.800	350
BG800	340	800	2.000	2.000	3.000	1.500	1.250	1.000	2.000 – 2.200	500
BG1200	430	1.200	2.200	2.200	3.200	2.300	1.250	1.000	2.000 – 2.200	700
BG2000	760	2.000	2.400	2.400	3.600	3.000	1.500	1.000	2.200 – 2.500	900
BG3000	1.240	3.000	2.700	2.700	3.900	4.500	1.500	1.000	2.200 – 2.500	1.500
BG5000	1.890	5.000	3.200	3.200	4.300	11.000	1.500	1.000	2.200 – 2.500	3.500

Larger plants and dimensions for 130° conical and dished containers available upon request. Subject to technical changes without prior notice



Our spectrum of services:

- Engineering for entire plants and complete AZO group projects
- Custom plant engineering (continuous plants, late stage mixing, etc.)
- Sterile versions and ATEX applications
- Customer Process Centre (CPC), including trials with customer products, product analyses and scale-up calculations
- Project management
- Consulting, process analysis and process optimisation
- Software systems (new installations and upgrades)
- Commissioning and training
- Conversion, maintenance and repair
- After Sales / Support & Service / Replacement Parts