



# Ariete Series Homogenizers

Innovation designed to last

# Applications & benefits

## Dairy

GEA homogenizers set the industry standard for sanitary and aseptic processing, automation and cleanability.

The homogenization process is used on dairy products to improve their stability and shelf life as well as increase digestibility and taste.

- Fresh and pasteurized milk
- UHT milk
- Milk for yoghurt
- Yoghurt drinks
- Desserts
- Cream cheese
- Fermented milk products
- Spray dried products



## Pharmaceutical & Biotech

Homogenizers stabilize active ingredients and dispersion in liquid pharmaceutical products for enhanced clinical effectiveness, improved drug tolerance and reduced dosage. Homogenization is also used for cell rupture on yeast and bacteria to extract intra-cellular substances.

- Vaccines
- Intravenous emulsions
- Liposomes
- Yeast
- Enzymes
- Bacteria



## Food & Beverage

Homogenization in the food industry is widely used to obtain a stable product, with a longer shelf life. It reduces the amount of additives used while improving the dispersion of ingredients and the absorption of flavors.

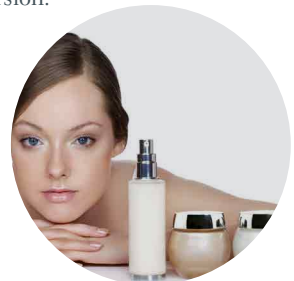
- Food emulsions
- Baby foods
- Fruits juices
- Cloudifiers/aromas
- Dressing
- Egg and mayonnaise
- Tomato products (paste/concentrate)
- Starches



## Home & Personal Care

High pressure homogenization can effectively reduce the particle size, resulting in uniform dimensional distribution, for stable and longer shelf life of cosmetic products, along with a better active ingredient dispersion.

- Ointments
- Lotions
- Nail varnish
- Hair colorants
- Detergents



## Chemical

High pressure homogenization creates stable emulsions, dispersions and mixes for chemical products. It can also improve chemical reaction and extraction processes, polymer properties and pigment color.

- Chemical slurries
- Paints
- Latex
- Polymers
- Pesticides/fertilizers
- Cellulose fibers



# Technology advantages

Ariete machines: state-of-the-art technology, powerful and reliable for customized solutions.

## Customization beyond the options

The GEA Ariete Series includes 15 models, completely customizable with more than 300 options to guarantee the best performance and reliability.

These tailor made solutions help customers meet products needs and resolve technical challenges for new application development.

## Main features and options:

- Monoblock construction (up to 600 bar) or multiblock (up to 1500 bar) forged high grade Duplex or Super Duplex SS alloy
- Special block design for cleanability (NiSoCLEAN) and difficult products (OpenXFLO)
- 4 types of plunger materials to easily meet any production needs
- Aseptic and sanitary design available
- High efficiency NanoVALVE™ reduces operating pressures up to 30%
- Vibration monitoring system
- Wide range of gaskets and seals for best optimization
- Remote control system

## Advantages:

- Best results at lowest consumption of energy and resources
- Fully customizable with more than 300 options
- Eco-friendly options available to maximize efficiency reducing TCO
- Hygienic design
- Fully compliant with all pharmaceutical requirements and regulations
- Working condition monitoring system to avoid downtime
- Easy access and maintenance with removable panels



# Efficiency at its best

## Green options and special solutions

As part of the program to prioritize sustainability, GEA homogenizers offer specific options for optimizing the use of resources.

### NisoPURE

The most efficient system to sterilize water used for aseptic production, saving 90% of water and steam.

### Oil Purification System

It guarantees a continuous oil regeneration enhancing oil lifetime, quality and safety.

### Gearbox oil cooling unit

This oil-to-air cooling unit saves water and oil using air to cool down oil temperature.

## Traceability and certifications

Ariete Series homogenizers are fully compliant with the Regulation (EC) N. 1935/2004 and all food and pharmaceutical requirements - including the most stringent certifications (USDA, FDA, CE, 3-A Sanitary Standard, Atex, cGMP).



Ariete Homogenizer 5400



# Performances

From the smallest machine size to the largest one, GEA assures the same quality on the final product.

## PERFORMANCES

### Max Flow Rate l/h

Pressure bar	Ariete NS2006	Ariete NS3006	Ariete NS3011	Ariete NS3015	Ariete NS3030	Ariete NS3037	Ariete NS3045
100	650	1.000	3.000	4.500	7.500	12.000	12.000
180	450	750	1.800	2.500	5.000	6.700	8.000
200	450	750	1.600	2.200	4.200	6.000	7.300
250	400	600	1.300	1.800	3.300	5.000	5.800
400	200	350	800	1.100	1.700	3.000	3.600
600	100	220	550	750	1.100	2.000	/
1.000	80	120	/	400	650	1.200	/
1.200	80	120	/	370	500	1.000	/
1.500	35	50	/	250	330	800	/

### Max Flow Rate l/h

Pressure bar	Ariete NS3055	Ariete NS3075	Ariete NS3090	Ariete NS3110	Ariete NS5132	Ariete Homogenizer 5200	Ariete Homogenizer 5315	Ariete Homogenizer 5400
100	14.000	14.000	17.500	22.000	28.000	37.000	65.000	80.000
180	10.000	12.000	16.000	20.000	23.900	34.000	47.000	65.000
200	9.000	11.000	14.500	18.000	21.500	30.000	41.000	57.000
250	7.200	8.200	11.700	15.000	17.200	26.000	34.000	45.000
400	4.500	4.900	7.300	8.700	10.700	15.000	21.000	28.000
600	2.800	3.100	4.900	5.500	7.000	10.000	14.000	18.000
1.000	/	1.400	/	3.400	/	5.500	/	10.000
1.200	/	1.400	/	2.600	/	4.200	/	7.000
1.500	/	1.000	/	1.800	/	3.000	/	5.000

Technical specifications are preliminary and subject to modification without notice



## We live our values.

Excellence • Passion • Integrity • Responsibility • GEA-versity

GEA is a global technology company with multi-billion euro sales operations in more than 50 countries. Founded in 1881 the company is one of the largest providers of innovative equipment and process technology. GEA is listed in the STOXX® Europe 600 Index. In addition, the company is included in selected MSCI Global Sustainability Indexes.

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