

GEA Niro Soavi Technical Datasheet

Homogenizer & High Pressure Pump

Ariete NS5250

From the world leader in high pressure homogenization: absolute quality and reliability with advanced technical solutions for any process need.

The Ariete series is the state-of-the-art technology for powerful reliable high pressure machines and customized solutions. The Ariete machines, compliant to EU safety rules (CE standards) and built according to EN ISO 9001:2008 Quality System, are the best fit for pharmaceutical, dairy, food & beverage, biotechnology, chemical and cosmetics industries.



Liquid end

- High quality forged stainless steel and special high wear resistant materials for best mechanical and corrosion resistance performance
- Optimized cleanable design with 3-A and electropolished versions available
- Ball (PVB) and poppet valves (PVP) interchangeable into the same block design for maximum product handling flexibility
- Aseptic version compression block available as option, with sterile condensate packing flushing
- Various materials for pumping plungers
- Product outlet on the left side
- Monoblock construction, up to 700 bar, or multiblock, over 700 bar forged high grade Duplex or Super Duplex SS alloy

Homogenizing valve

- One stage (standard on homogenizers) with pneumatic adjustment from the machine's control panel
- High efficiency homogenizing valves, based on advanced fluid dynamics concepts type NanoVALVE™ and Re+VALVE, available as standard
- Second homogenizing stage and aseptic execution as options

Power end

- Heavy duty and reliable power frame housing the transmission elements with integrated planetary gearbox
- AC motor drive
- Forced lubrication with gear pump, low oil pressure switch and oil cooling

• "V" belts drive with belts tensioning system

Casing

- Made in polished stainless steel with noise reduction liquid-end enclosure
- Easy access and maintenance by the use of removable panels and doors
- Fully separated liquid-end from drive end
- Safe access to the auxiliary systems on board the machine
- Full visibility of the process part
- Sound level <85dB (A)

Tools and spare parts

- Ordinary maintenance tools and one set of emergency spare parts supplied with the machine
- O&M manual with spare part list on CD-ROM

Automation

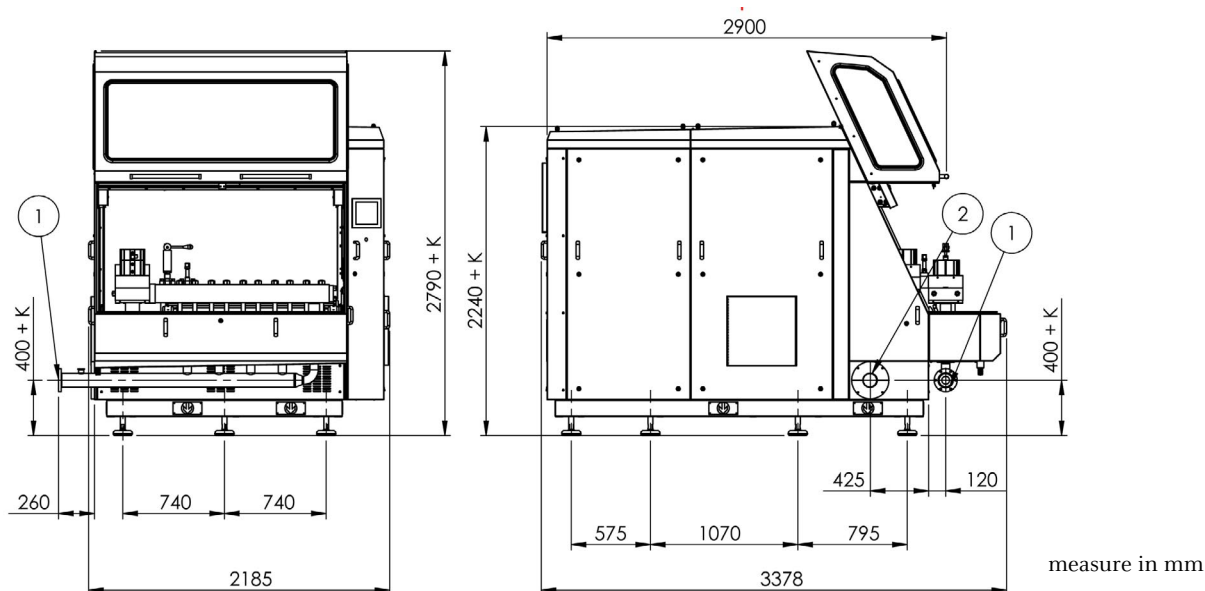
- Touch screen panel for operating parameters control and adjustment
- On-board diagnostic system
- Prearranged for remote control and process automation integration

Pump valves

- High wear resistant Stellite™ alloy removable seats; Tungsten Carbide as option
- Ball type (PVB) or poppet type (PVP) in solid Stellite™
- Ceramic or tungsten carbide materials available as option

Ariete NS5250

Dimensional drawing



Available up to 600 bar, suitable for CIP and SIP, the Ariete machines can be supplied with all necessary customizations for easy integration in any process line, sanitary or aseptic. The wide range of available materials, the low running speed and linear plunger velocity allow Ariete machines to perform at their best also on abrasive and viscous product.

Plungers

- Chrome coated stainless steel
- Tungsten carbide coated stainless steel
- Solid ceramic
- HCR Chromium Carbide coated stainless steel

Product line connections

- DIN 11851, Tri-Clamp™, GEA Tuchenhausen Varivent™
- Others as option upon request

Power end

- Rugged cast iron power frame
- Forced lubrication with low oil pressure switch and oil cooling
- Polished SS panels removable for maintenance

Main options on request

- High pressure pump version
- 2nd stage homogenizing valve
- Electric power board for fixed or variable capacity (with frequency converter)
- Aseptic execution available
- 3-A execution, FDA approved gasket and cGMP documentation
- Acoustic based service monitoring systems
- Spare part packages

PERFORMANCE *

Pressure (bar)	Max Flow Rate (l/h)
150	45000
150	37000
200	34000
250	27000
300	22500
400	17000
450	15000
500	13500
600	11000

* Each line refers to a different machine, which is designed for the specific maximum pressure and the specific maximum capacity.

TECHNICAL DATA

Number of plungers	5
Stroke	150 mm
Absorbed motor power up to	250 kW
Net weight	7200 kg
Gross weight	7900 kg
Lubricating Oil for crankcase and gearbox ISO VG 150	95 l
Lubricating/cooling water (inlet @ 14°C) ± 430 l/h	

GEA Mechanical Equipment

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