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# ГОМОГЕНИЗАТОРЫ ARIETE NS

## Технические характеристики





# Ariete NS2006

## Homogenizer & High Pressure Pump Technical datasheet

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 stainless steel and special high wear resistant materials for best mechanical and corrosion resistance performance
- 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
- Monoblock construction, up to 600 bar, or multiblock, up to 1500 bar forged high grade Duplex or Super Duplex SS alloy

### Homogenizing valve

- One stage (standard on homogenizers) with hand wheel adjustment
- High efficiency homogenizing valve, based on advanced fluid dynamics concepts
- Engineered for easy maintenance and cleaning
- Second homogenizing stage as optional
- Wear parts made of tungsten carbide, ceramics as option

# Ariete NS2006

## Homogenizer & High Pressure Pump

Available up to 1500 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, linear plunger velocity allow Ariete machines to perform at their best also on abrasive and viscous product.

### Power end

- Cast iron power frame
- Heavy duty and reliable power frame housing the transmission elements
- AC motor drive
- Splash type lubrication system, forced as option
- “V” belts direct drive
- Polished SS machine casing on stainless steel frame
- Special high grade Duplex / super-Duplex SS alloy compression head
- Monoblock or Multiblock VHP construction

### Casing

- Polished stainless steel with removable panels for easy access and maintenance
- Stainless steel AISI304 base frame on adjustable legs

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

### Tools and spare parts

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

### Pump valves

- High wear resistant Stellite™ alloy removable seats
- Ball type (PVB) or poppet type (PVP) in solid Stellite™

- Ceramic or tungsten carbide materials available as option

- Pressure measurement & control**
- Sanitary design analog high pressure gauge
- Pressure transmitters and transducers available as option

- Overpressure relief valve installed on compression block

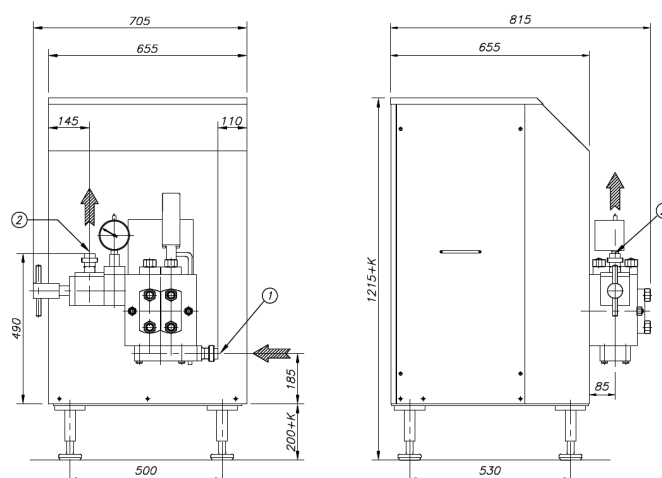
### Product line connections

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

### Main options on request

- High pressure pump version
- 2nd stage homogenizing valve
- Electric power board for fixed or variable capacity
- Machine automation and remote controls
- Aseptic execution
- 3-A execution, FDA approved gasket and cGMP documentation

### Dimensional drawing



Overall dimensions (mm)

### Performance

Pressure (bar)	Max Flow Rate (l/h)	Pressure (bar)	Max Flow Rate (l/h)
100	650	400	200
150	650	600	100
180	450	1000	80
200	450	1200	80
250	400	1500	35

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

### Design features

Number of plungers	2
Stroke	40 mm
Max. motor power	5.5 kW
Net weight	375 kg
Gross weight	515 kg
Lubricating and cooling water	40 l/h
Lubricating oil ISO VG 150	1.5 l



# Ariete NS3006

## Homogenizer & High Pressure Pump Technical datasheet

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### Liquid end

- High quality stainless steel and special high wear resistant materials for best mechanical and corrosion resistance performance

- 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
- Monoblock construction, up to 600 bar, or multiblock, up to 1500 bar forged high grade Duplex or Super Duplex SS alloy

### Homogenizing valve

- One stage (standard on homogenizers) with hand wheel adjustment
- High efficiency homogenizing valve, based on advanced fluid dynamics concepts
- Engineered for easy maintenance and cleaning
- Second homogenizing stage as option
- Wear parts made of tungsten carbide, ceramics as option



# Ariete NS3006

## Homogenizer & High Pressure Pump

Available up to 1500 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.

### Power end

- Cast iron power frame
- Heavy duty and reliable power frame housing the transmission elements
- AC motor drive
- Splash type lubrication system, forced as option
- “V” belts direct drive
- Polished SS machine casing on stainless steel frame

### Casing

- Polished stainless steel with removable panels for easy access and maintenance
- Stainless steel AISI 304 base frame on adjustable legs

### Plungers

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

### Tools and spare parts

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

### Pump valves

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

### Pressure measurement & control

- Sanitary design analog high pressure gauge
- Pressure transmitters and transducers available as option
- Overpressure relief valve installed on compression block

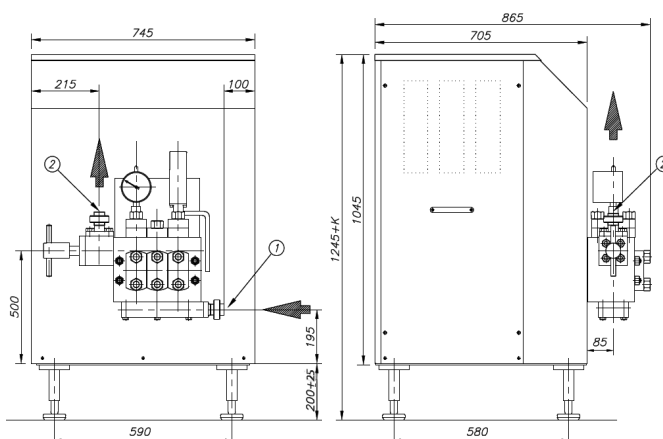
### Product line connections

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

### Main options on request

- High pressure pump version
- 2nd stage homogenizing valve
- Electric power board for fixed or variable capacity
- Machine automation and remote controls
- Aseptic execution
- 3-A execution, FDA approved gasket and cGMP documentation

### Dimensional drawing



Overall dimensions (mm)

### Performance

Pressure (bar)	Max Flow Rate (l/h)	Pressure (bar)	Max Flow Rate (l/h)
150	1000	600	220
180	750	1000	120
200	750	1200	120
250	600	1500	50
400	350		

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

### Design features

Number of plungers	3
Stroke	40 – 50 mm
Max. motor power	5.5 kW
Net weight	500 kg
Gross weight	650 kg
Lubricating and cooling water	60 l/h
Lubricating oil ISO VG 150	3 l



# Ariete NS3011

## Homogenizer & High Pressure Pump Technical data

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 stainless steel and special high wear resistant materials for best mechanical and corrosion resistance performance

- 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
- Monoblock construction, up to 600 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 valve, based on advanced fluid dynamics concepts
- Engineered for easy maintenance and cleaning
- Second homogenising stage as option
- Wear parts made of tungsten carbide, ceramics as option

# Ariete NS3011

## Homogenizer & High Pressure Pump

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.

### Power end

- Cast iron power frame
- Heavy duty and reliable power frame housing the transmission elements
- AC motor drive
- Forced lubrication with gear pump, low oil pressure switch and oil cooling
- “V” belts drive and gearbox speed reduction unit
- Polished SS machine casing on stainless steel frame

### Casing

- Made of polished stainless steel with sound proof lining
- Easy access and maintenance with removable panels

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

### Tools and spare parts

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

### Pump valves

- High wear resistant Stellite™ alloy removable seats
- Ball type (PVB) or poppet type (PVP) in solid Stellite™

- Ceramic or tungsten carbide materials available as option

### Pressure measurement & control

- Sanitary design analog high pressure gauge
- Pressure transmitters and transducers available as option

- Overpressure relief valve installed on compression block

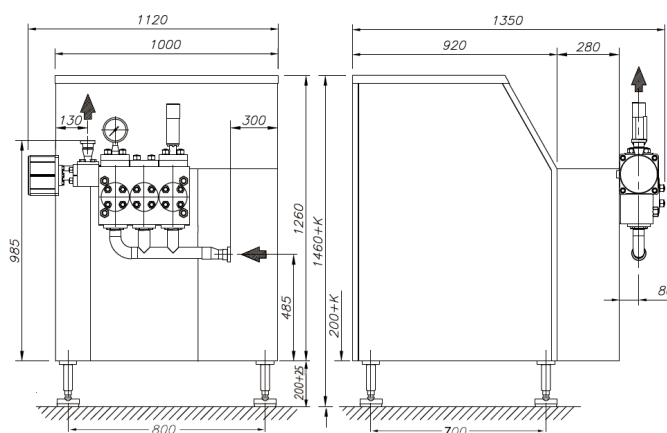
### Product line connections

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

### Main options on request

- High pressure pump version
- 2nd stage homogenizing valve
- Electric power board for fixed or variable capacity
- Machine automation and remote controls
- Aseptic execution
- 3-A execution, FDA approved gasket and cGMP documentation

### Dimensional drawing



Overall dimensions (mm)

### Performance

Pressure (bar)	Max Flow Rate (l/h)	Pressure (bar)	Max Flow Rate (l/h)
100	3000	300	1100
150	2200	400	800
200	1600	500	650
250	1300	600	550

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

### Design features

Number of plungers	3
Maximum plunger diameter (Ø)	45 mm
Stroke	60 mm
Absorbed motor power up to	11 kW
Net weight	975 kg
Gross weight	1225 kg
Lubricating and cooling water	90 l/h
Lubricating oil ISO VG 150	20 l
Gearbox oil EP 220	6 l



# Ariete NS3015

## Homogenizer & High Pressure Pump Technical datasheet

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 stainless steel and special high wear resistant materials for best mechanical and corrosion resistance performance

- 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
- Monoblock construction, up to 600 bar, or multiblock, up to 1500 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 valve, based on advanced fluid dynamics concepts
- Engineered for easy maintenance and cleaning
- Second homogenising stage as option
- Wear parts made of tungsten carbide, ceramics as option

# Ariete NS3015

## Homogenizer & High Pressure Pump

Available up to 1500 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.

### Power end

- Cast iron power frame
- Heavy duty and reliable power frame housing the transmission elements
- AC motor drive
- Forced lubrication with gear pump, low oil pressure switch and oil cooling
- “V” belts drive and gearbox speed reduction unit
- Polished SS machine casing on stainless steel frame

### Casing

- Made of polished stainless steel with sound proof lining
- Easy access and maintenance with removable panels

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

### Tools and spare parts

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

### Pump valves

- High wear resistant Stellite™ alloy removable seats
- Ball type (PVB) or poppet type (PVP) in solid Stellite™

- Ceramic or tungsten carbide materials available as option

### Pressure measurement & control

- Sanitary design analog high pressure gauge
- Pressure transmitters and transducers available as option

- Overpressure relief valve installed on compression block

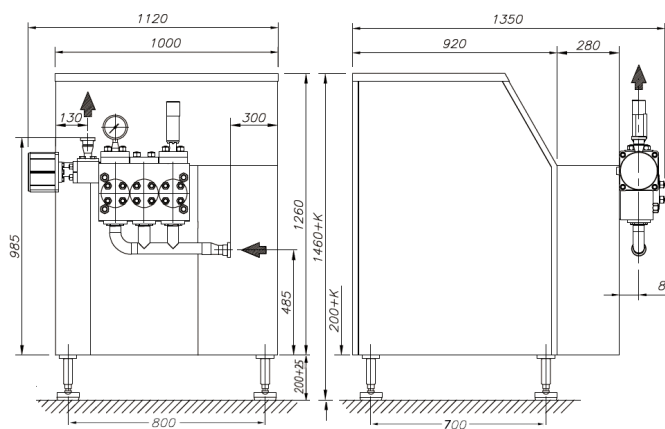
### Product line connections

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

### Main options on request

- High pressure pump version
- 2nd stage homogenizing valve
- Electric power board for fixed or variable capacity
- Machine automation and remote controls
- Aseptic execution
- 3-A execution, FDA approved gasket and cGMP documentation

### Dimensional drawing



Overall dimensions (mm)

### Performance

Pressure (bar)	Max Flow Rate (l/h)	Pressure (bar)	Max Flow Rate (l/h)
100	4500	600	750
150	3000	1000	400
200	2200	1200	370
250	1800	1500	250
400	1100		

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

### Design features

Number of plungers	3
Stroke	60 mm
Absorbed motor power up to	15 kW
Net weight	1000 kg
Gross weight	1275 kg
Lubricating and cooling water	90 l/h
Lubricating oil ISO VG 150	20 l
Gearbox oil EP 220	7 l



# Ariete NS3030

## Homogenizer & High Pressure Pump Technical datasheet

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### Liquid end

- High quality stainless steel and special high wear resistant materials for best mechanical and corrosion resistance performance

- 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
- Monoblock construction, up to 600 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 valve NanoVALVE™, based on advanced fluid dynamics concepts, available as option
- Engineered for easy maintenance and cleaning
- Second homogenizing stage as option
- Wear parts made of tungsten carbide, ceramics as option



# Ariete NS3030

## Homogenizer & High Pressure Pump

Available up to 1500 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.

### Power end

- Cast iron power frame
- Heavy duty and reliable power frame housing the transmission elements
- AC motor drive
- Forced lubrication with gear pump, low oil pressure switch and oil cooling
- “V” belts drive and gearbox speed reduction unit
- Polished SS machine casing on 55 frame

### Casing

- Made of polished stainless steel with sound proof lining
- Easy access and maintenance with removable panels
- Noise reduction execution ( $\leq 75\text{dB (A)}$ ) available as option

### Plungers

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

### Tools and spare parts

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

### Pump valves

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

- Start/stop drive control
- Pressure trend diagram visualization
- Built-in safety protection against overpressure

### Pressure measurement & control

- Sanitary design analog high pressure gauge
- Pressure transmitters and transducers available as option
- Overpressure relief valve installed on compression block

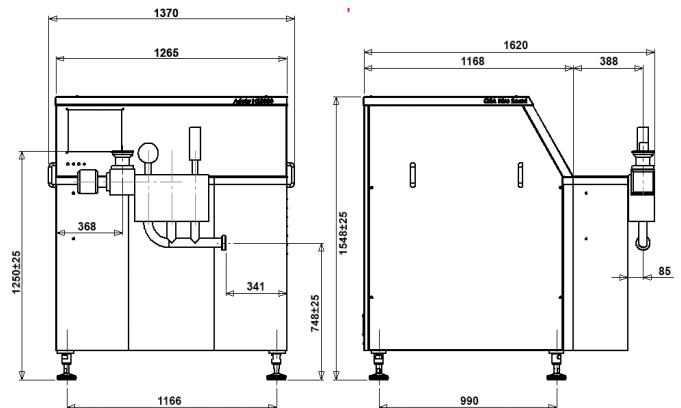
### Product line connections

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

### Main options on request

- High pressure pump version
- 2nd stage homogenizing valve
- Electric power board for fixed or variable capacity
- Machine automation and remote controls
- Aseptic execution
- 3-A execution, FDA approved gasket and cGMP documentation

### Dimensional drawing



Overall dimensions (mm)

### Performance

Pressure (bar)	Max Flow Rate (l/h)	Pressure (bar)	Max Flow Rate (l/h)
100	7500	500	1700
150	6000	600	1100
200	4200	700	800
250	3300	1000	650
300	2500	1200	500
400	1700	1500	330

### Design features

Number of plungers	3
Maximum plunger diameter (Ø)	65 mm
Stroke	80 mm
Absorbed motor power up to	30 kW
Net weight	1550 kg
Gross weight	1850 kg
Lubricating and cooling water	90 l/h
Lubricating oil ISO VG 150	28 l
Gearbox oil EP 220	9 l





# Ariete NS3037

## Homogenizer & High Pressure Pump Technical datasheet

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 stainless steel and special high wear resistant materials for best mechanical and corrosion resistance performance
- 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
- Monoblock construction, up to 600 bar, or multiblock, up to 1500 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 valve NanoVALVE™, based on advanced fluid dynamics concepts, available as option
- Engineered for easy maintenance and cleaning
- Second homogenizing stage as option
- Wear parts made of tungsten carbide, ceramics as option

# Ariete NS3037

## Homogenizer & High Pressure Pump

Available up to 1500 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.

### Power end

- Cast iron power frame
- Heavy duty and reliable power frame housing the transmission elements
- AC motor drive
- Forced lubrication with gear pump, low oil pressure switch and oil cooling
- “V” belts drive and gearbox speed reduction unit
- Polished SS machine casing on stainless steel frame

### Casing

- Made of polished stainless steel with sound proof lining
- Easy access and maintenance with removable panels
- Noise reduction execution ( $\leq 75\text{dB (A)}$ ) available as options

### Plungers

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

### Tools and spare parts

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

### Pump valves

- High wear resistant Stellite™ alloy removable seats
- Ball type (PVB) or poppet type (PVP) in solid Stellite™
- Ceramic or tungsten carbide materials available as option
- Sanitary design analog high pressure gauge
- Pressure transmitters and transducers available as option
- Overpressure relief valve installed on compression block

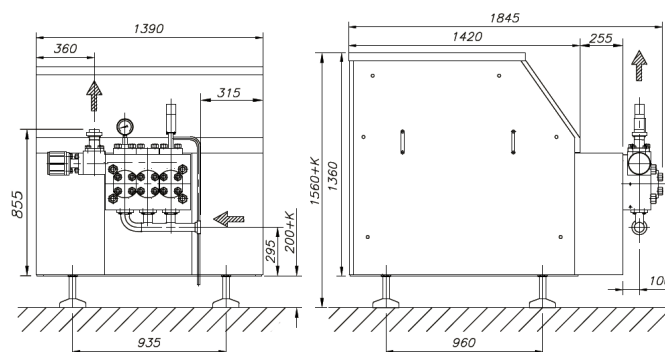
### Product line connections

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

### Main options on request

- High pressure pump version
- 2nd stage homogenizing valve
- Electric power board for fixed or variable capacity
- Machine automation and remote controls
- Aseptic execution
- 3-A execution, FDA approved gasket and cGMP documentation

### Dimensional drawing



Overall dimensions (mm)

### Performance

Pressure (bar)	Max Flow Rate (l/h)	Pressure (bar)	Max Flow Rate (l/h)
100	12000	600	2000
150	8000	1000	1200
200	6000	1200	1000
250	5000	1500	800
400	3000		

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

### Design features

Number of plungers	3
Stroke	70 mm
Absorbed motor power up to	37 kW
Net weight	2100 kg
Gross weight	2450 kg
Lubricating and cooling water	90 l/h
Lubricating oil ISO VG 150	28 l
Gearbox oil EP 220	9 l



# Ariete NS3045

## Homogenizer & High Pressure Pump Technical datasheet

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 stainless steel and special high wear resistant materials for best mechanical and corrosion resistance performance

- 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
- Monoblock construction, up to 400 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 valve NanoVALVE™, based on advanced fluid dynamics concepts, available as option
- Engineered for easy maintenance and cleaning
- Second homogenizing stage as option
- Wear parts made of tungsten carbide, ceramics as option

# Ariete NS3045

## Homogenizer & High Pressure Pump

Available up to 400 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.

### Power end

- Cast iron power frame
- Heavy duty and reliable power frame housing the transmission elements
- AC motor drive
- Forced lubrication with gear pump, low oil pressure switch and oil cooling
- “V” belts drive and gearbox speed reduction unit
- Polished SS machine casing on stainless steel frame

### Casing

- Made of polished stainless steel with sound proof lining
- Easy access and maintenance with removable panels
- Noise reduction execution ( $\leq 75\text{dB (A)}$ ) available as options

### Plungers

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

### Tools and spare parts

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

### Pump valves

- High wear resistant Stellite™ alloy removable seats
- Ball type (PVB) or poppet type (PVP) in solid Stellite™
- Ceramic or tungsten carbide materials available as option
- Pressure measurement & control
- Sanitary design analog high pressure gauge
- Pressure transmitters and transducers available as option
- Overpressure relief valve installed on compression block

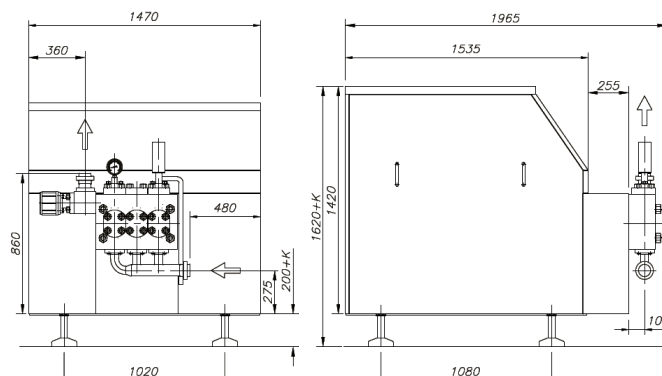
### Product line connections

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

### Main options on request

- High pressure pump version
- 2nd stage homogenizing valve
- Electric power board for fixed or variable capacity
- Machine automation and remote controls
- Aseptic execution
- 3-A execution, FDA approved gasket and cGMP documentation

### Dimensional drawing



Overall dimensions (mm)

### Performance

Pressure (bar)	Max Flow Rate (l/h)	Pressure (bar)	Max Flow Rate (l/h)
100	12000	250	5800
150	9800	300	4900
180	8000	350	4200
200	7300	400	3600

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

### Design features

Number of plungers	3
Maximum plunger diameter (Ø):	85 mm
Stroke	80 mm
Absorbed motor power up to	45 kW
Net weight	2200 kg
Gross weight	2575 kg
Lubricating and cooling water	90 l/h
Lubricating oil ISO VG 150	30 l
Gearbox oil EP 220	12 l



# Ariete NS3055

## Homogenizer & High Pressure Pump Technical datasheet

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 stainless steel and special high wear resistant materials for best mechanical and corrosion resistance performance

- 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
- Monoblock construction, up to 600 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 valve NanoVALVE™, based on advanced fluid dynamics concepts, available as option
- Engineered for easy maintenance and cleaning
- Second homogenizing stage as option
- Wear parts made of tungsten carbide, ceramics as option

# Ariete NS3055

## Homogenizer & High Pressure Pump

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.

### Power end

- Cast iron power frame
- Heavy duty and reliable power frame housing the transmission elements
- AC motor drive
- Forced lubrication with gear pump, low oil pressure switch and oil cooling
- “V” belts drive and gearbox speed reduction unit
- Polished SS machine casing on stainless steel frame

### Casing

- Made of polished stainless steel with sound proof lining
- Easy access and maintenance with removable panels
- Noise reduction execution ( $\leq 75\text{dB (A)}$ ) available as options

### Plungers

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

### Tools and spare parts

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

### Pump valves

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

### Pressure measurement & control

- Sanitary design analog high pressure gauge
- Pressure transmitters and transducers available as option
- Overpressure relief valve installed on compression block

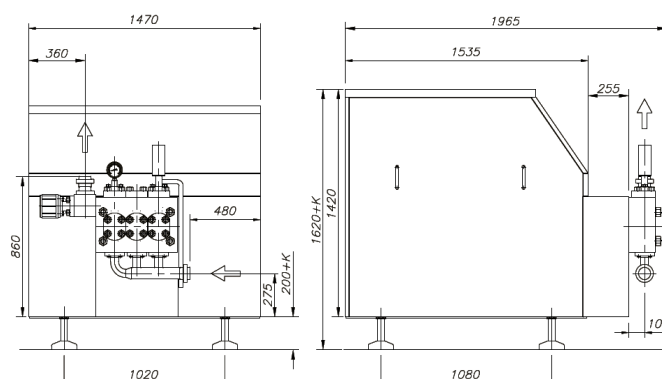
### Product line connections

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

### Main options on request

- High pressure pump version
- 2nd stage homogenizing valve
- Electric power board for fixed or variable capacity
- Machine automation and remote controls
- Aseptic execution
- 3-A execution, FDA approved gasket and cGMP documentation

### Dimensional drawing



Overall dimensions (mm)

### Performance

Pressure (bar)	Max Flow Rate (l/h)	Pressure (bar)	Max Flow Rate (l/h)
100	14000	350	5100
150	12000	400	4500
200	9000	500	3500
250	7200	600	2800
300	6000		

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

### Design features

Number of plungers	3
Maximum plunger diameter (Ø):	85 mm
Stroke	80 mm
Absorbed motor power up to	55 kW
Net weight	2300 kg
Gross weight	2685 kg
Lubricating and cooling water	90 l/h
Lubricating oil ISO VG 150	30 l
Gearbox oil EP 220	17 l





# Ariete NS3075

## Homogenizer & High Pressure Pump Technical datasheet

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 stainless steel and special high wear resistant materials for best mechanical and corrosion resistance performance

- 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
- Monoblock construction, up to 600 bar, or multiblock, up to 1500 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 valve NanoVALVE™, based on advanced fluid dynamics concepts, available as option
- Engineered for easy maintenance and cleaning
- Second homogenizing stage as option
- Wear parts made of tungsten carbide, ceramics as option



# Ariete NS3075

## Homogenizer & High Pressure Pump

Available up to 1500 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.

### Power end

- Cast iron power frame
- Heavy duty and reliable power frame housing the transmission elements
- AC motor drive
- Forced lubrication with gear pump, low oil pressure switch and oil cooling
- “V” belts drive and gearbox speed reduction unit

### Casing

- Made of polished stainless steel with sound proof lining
- Easy access and maintenance with removable panels
- Noise reduction execution ( $\leq 75$  dB(A)) available as options

### Plungers

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

### Tools and spare parts

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

### Pump valves

- High wear resistant Stellite™ alloy removable seats
- Ball type (PVB) or poppet type (PVP) in solid Stellite™

- Ceramic or tungsten carbide materials available as option

### Pressure measurement & control

- Sanitary design analog high pressure gauge
- Pressure transmitters and transducers available as option

- Overpressure relief valve installed on compression

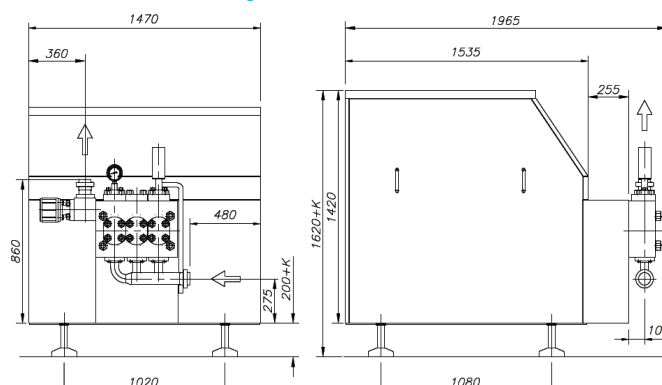
### Product line connections

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

### Main options on request

- High pressure pump version
- 2<sup>nd</sup> stage homogenizing valve
- Electric power board for fixed or variable capacity
- Machine automation and remote controls
- Aseptic execution
- 3-A execution, FDA approved gasket and cGMP documentation

### Dimensional drawing



Overall dimensions (mm)

### Performance

Pressure (bar)	Max Flow Rate (l/h)	Pressure (bar)	Max Flow Rate (l/h)
100	14000	600	3100
150	14000	1000	1400
200	11000	1200	1400
250	8200	1500	1000
400	4900		

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

### Design features

Number of plungers	3
Stroke	80 mm
Absorbed motor power up to	75 kW
Net weight	2400 kg
Gross weight	2800 kg
Lubricating and cooling water	90 l/h
Lubricating oil ISO VG 150	30 l
Gearbox oil EP 220	17 l



# Ariete NS3090

## Homogenizer & High Pressure Pump Technical datasheet

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 stainless steel and special high wear resistant materials for best mechanical and corrosion resistance performance

- 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
- Monoblock construction, up to 600 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 valve NanoVALVE™, based on advanced fluid dynamics concepts, available as option
- Engineered for easy maintenance and cleaning
- Second homogenizing stage as option
- Wear parts made of tungsten carbide, ceramics as option

# Ariete NS3090

## Homogenizer & High Pressure Pump

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.

### Power end

- Cast iron power frame
- Heavy duty and reliable power frame housing the transmission elements
- AC motor drive
- Forced lubrication with gear pump, low oil pressure switch and oil cooling
- “V” belts drive and gearbox speed reduction unit
- Polished SS machine casing on stainless steel frame

### Casing

- Made of polished stainless steel with sound proof lining
- Easy access and maintenance with removable panels
- Noise reduction execution ( $\leq 75\text{dB (A)}$ ) available as options

### Plungers

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

### Tools and spare parts

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

### Pump valves

- High wear resistant Stellite™ alloy removable seats
- Ball type (PVB) or poppet type (PVP) in solid Stellite™
- Ceramic or tungsten carbide materials available as option
- Sanitary design analog high pressure gauge
- Pressure transmitters and transducers available as option

- Overpressure relief valve installed on compression block

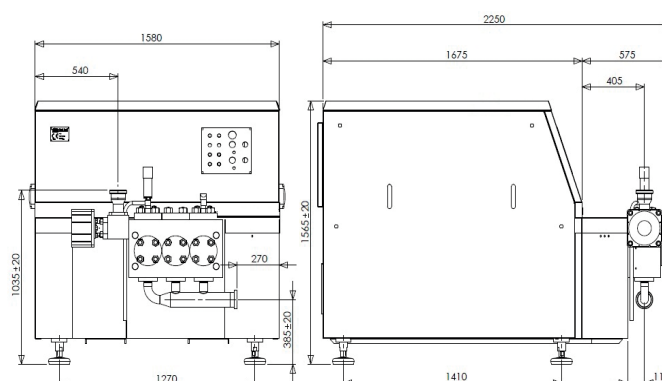
### Product line connections

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

### Main options on request

- High pressure pump version
- 2nd stage homogenizing valve
- Electric power board for fixed or variable capacity
- Machine automation and remote controls
- Aseptic execution
- 3-A execution, FDA approved gasket and cGMP documentation

### Dimensional drawing



Overall dimensions (mm)

### Performance

Pressure (bar)	Max Flow Rate (l/h)	Pressure (bar)	Max Flow Rate (l/h)
100	17500	350	8400
150	17500	400	7300
200	14500	500	5800
250	11700	600	4900
300	9800		

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

### Design features

Number of plungers	3
Maximum plunger diameter (Ø)	85 mm
Stroke	100 mm
Absorbed motor power up to	90 kW
Net weight	3300 kg
Gross weight	3740 kg
Lubricating and cooling water	90 l/h
Lubricating oil ISO VG 150	38 l
Gearbox oil EP 220	32 l



# Ariete NS3110

## Homogenizer & High Pressure Pump Technical datasheet

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 stainless steel and special high wear resistant materials for best mechanical and corrosion resistance performance

- 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
- Monoblock construction, up to 600 bar, or multiblock, up to 1500 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 valve NanoVALVE™, based on advanced fluid dynamics concepts, available as option
- Engineered for easy maintenance and cleaning
- Second homogenizing stage as option
- Wear parts made of tungsten carbide, ceramics as option

# Ariete NS3110

## Homogenizer & High Pressure Pump

Available up to 1500 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.

### Power end

- Cast iron power frame
- Heavy duty and reliable power frame housing the transmission elements
- AC motor drive
- Forced lubrication with gear pump, low oil pressure switch and oil cooling
- “V” belts drive and gearbox speed reduction unit
- Polished SS machine casing on stainless steel frame

### Casing

- Made of polished stainless steel with sound proof lining
- Easy access and maintenance with removable panels
- Noise reduction execution ( $\leq 75\text{dB (A)}$ ) available as options

### Plungers

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

### Tools and spare parts

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

### Pump valves

- High wear resistant Stellite™ alloy removable seats
- Ball type (PVB) or poppet type (PVP) in solid Stellite™
- Ceramic or tungsten carbide materials available as option
- Pressure measurement & control
- Sanitary design analog high pressure gauge
- Pressure transmitters and transducers available as option

- Overpressure relief valve installed on compression block

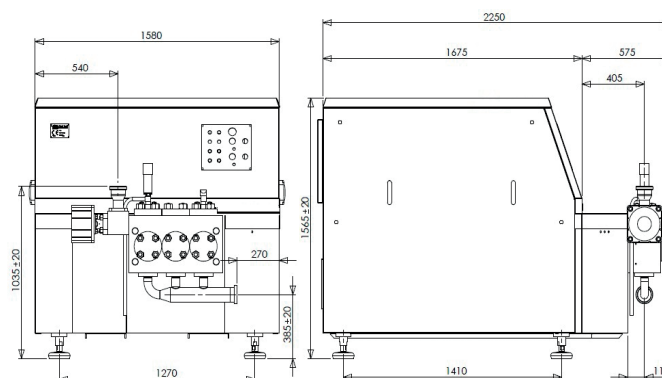
### Product line connections

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

### Main options on request

- High pressure pump version
- 2nd stage homogenizing valve
- Electric power board for fixed or variable capacity
- Machine automation and remote controls
- Aseptic execution
- 3-A execution, FDA approved gasket and cGMP documentation

### Dimensional drawing



Overall dimensions (mm)

### Performance

Pressure (bar)	Max Flow Rate (l/h)	Pressure (bar)	Max Flow Rate (l/h)
100	22000	600	5500
150	22000	1000	3400
200	18000	1200	2600
250	15000	1500	1800
400	8700		

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

### Design features

Number of plungers	3
Stroke	100 mm
Absorbed motor power up to	110 kW
Net weight	3500 kg
Gross weight	3960 kg
Lubricating and cooling water	120 l/h
Lubricating oil ISO VG 150	38 l
Gearbox oil EP 220	32 l
Gearbox cooling water*	700 l/h

\* Air cooling unit for gearbox oil available



# GEA Ariete Homogenizer 3160

## Homogenizer & High Pressure Pump Technical datasheet

The Ariete Series is the state-of-the-art 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, biotech, chemical and cosmetics industries.

Available up to 1500 bar, suitable for CIP and SIP, Ariete Series can be supplied with all necessary customizations for easy integration in any process line. The wide range of available materials, the low running speed (max. 185 rpm) and linear plunger velocity allow Ariete machines to perform at their best also on abrasive and viscous product.

### Main options

- 2<sup>nd</sup> stage homogenizing valve
- Electric power board for fixed or variable capacity
- Machine automation and remote controls
- Aseptic execution
- 3-A execution
- FDA approved gaskets and cGMP documentation

### Sustainability options

- NanoVALVE™
- Oil Purification System
- NiSoPURE
- Gearbox oil cooling unit\*

### Technical data

Number of plungers	3
Absorbed motor power up to	160 kW
Net weight	4.600 kg
Gross weight	5.060 kg

### Sustainability values

Energy consumption/1000 l product (kWh)	4,5
Water consumption/1000 l product (l)	4
Lubricating and cooling water	120 l/h
Gearbox cooling water*	800 l/h
Oil consumption ISO VG 150	38 l/2.000 h
Oil consumption EP 220	32 l/20.000 h
Noise level	≤82 dB(A) ± 2
Carbon footprint/1000 l product (kg CO <sub>2</sub> )	2,29

Process data  
Sanitary execution: max. capacity at 150 bar; water max. hardness <15°fH, max. particle size 60 microns, filtered water; noise level at max. capacity and max. pressure at 1 meter distance; CO<sub>2</sub> emissions based on electricity production generating 0,5 kg CO<sub>2</sub>/kWh.



# GEA Ariete Homogenizer 3160

## Homogenizer & High Pressure Pump

### Liquid end

- High quality stainless steel and special high wear resistant materials for best mechanical and corrosion resistance performance
- 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
- Monoblock construction up to 600 bar or multiblock up to 1500 bar, forged high grade Duplex or Super Duplex SS

### Homogenizing valve

- One stage (standard on homogenizers) with pneumatic adjustment from the machine's control panel
- High efficiency homogenizing valve NanoVALVE™, available as option
- Engineered for easy maintenance and cleaning
- Second stage as option
- Wear parts made of tungsten carbide, ceramics as option

### Power end

- Cast iron power frame
- Heavy duty and reliable power frame housing the transmission elements
- G-FX drive System for gearbox
- "V" belts drive and gearbox speed reduction unit
- AC motor drive
- Forced lubrication with gear pump, low oil pressure switch and oil cooling

### Casing

- Made of polished stainless steel with sound proof lining
- Easy access and maintenance with removable panels
- Noise reduction execution ( $\leq 78 \text{ dB(A)} \pm 2$ ) available as option

### Plungers

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

### Pump valves

- High wear resistant Stellite™ alloy removable seats
- Ball type (PVB) or poppet type (PVP) in solid Stellite™

- Tungsten carbide material available as option.

### Pressure measurement & control

- Sanitary design analog high pressure gauge
- Pressure transmitters and transducers available as option

### Safety devices

- Overpressure relief valve installed on the compression block available as option in different versions according to customer applications
- Emergency push button with reset
- Stainless steel compression head cover

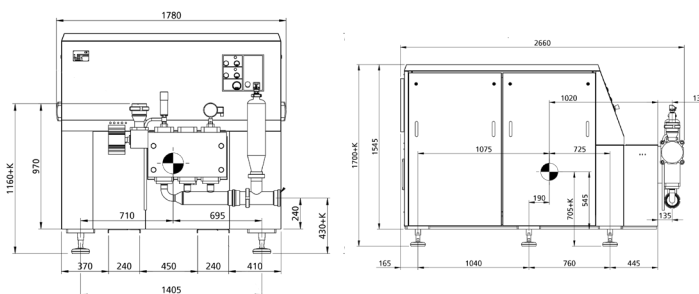
### Product line connections

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

### Tools and spare parts

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

### Dimensional drawing



Overall dimensions (mm)

### Performance

Pressure (bar)	Max Flow Rate (l/h)	Pressure (bar)	Max Flow Rate (l/h)
180	22.000	600	7.500
200	21.000	1.000	4.100
250	19.000	1.200	3.100
400	12.000	1.500	2.100

Each line refers to a different machine, which is designed for the specified maximum pressure and maximum capacity in the above table.





# Ariete NS5132

## Homogenizer & High Pressure Pump Technical datasheet

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 stainless steel and special high wear resistant materials for best mechanical and corrosion resistance performance

- 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
- Monoblock construction 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 valve NanoVALVE™, based on advanced fluid dynamics concepts, available as option
- Engineered for easy maintenance and cleaning
- Second homogenizing stage as option
- Wear parts made of tungsten carbide, ceramics as option

# Ariete NS5132

## Homogenizer & High Pressure Pump

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.

### Power end

- Cast iron power frame
- Heavy duty and reliable power frame housing the transmission elements
- AC motor drive
- Forced lubrication with gear pump, low oil pressure switch and oil cooling
- "V" belts drive and gearbox speed reduction unit
- Polished SS machine casing on stainless steel frame

### Casing

- Made of polished stainless steel with sound proof lining
  - Easy access and maintenance with removable panels
  - Noise reduction execution ( $\leq 75\text{dB (A)}$ ) available as options
- ### Plungers
- Chrome coated stainless steel
  - Tungsten carbide coated stainless steel
  - Solid ceramic
  - HCR Chromium Carbide coated stainless steel

### Tools and spare parts

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

### Pump valves

- High wear resistant Stellite™ alloy removable seats
- Ball type (PVB) or poppet type (PVP) in solid Stellite™

- Ceramic or tungsten carbide materials available as option
- ### Pressure measurement & control

- Sanitary design analog high pressure gauge
- Pressure transmitters and transducers available as option

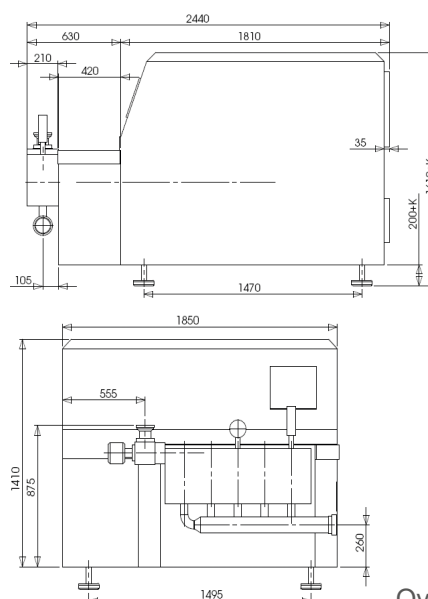
- Overpressure relief valve installed on compression block
- ### Product line connections

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

### Main options on request

- High pressure pump version
- 2nd stage homogenizing valve
- Electric power board for fixed or variable capacity
- Machine automation and remote controls
- Aseptic execution
- 3-A execution, FDA approved gasket and cGMP documentation

### Dimensional drawing



Overall dimensions (mm)

### Performance

Pressure (bar)	Max Flow Rate (l/h)	Pressure (bar)	Max Flow Rate (l/h)
100	28000	250	17200
150	28000	400	10700
200	21500	600	7000

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

### Design features

Number of plungers	5
Stroke	100 mm
Absorbed motor power up to	132 kW
Net weight	5200 kg
Gross weight	5850 kg
Lubricating and cooling water	200 l/h
Lubricating oil ISO VG 150	55 l
Gearbox oil EP 220	43 l
Gearbox cooling water*	800 l/h

\* Air cooling unit for gearbox oil available



# GEA Ariete Homogenizer 5200

## Homogenizer & High Pressure Pump Technical datasheet

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 stainless steel and special high wear resistant materials for best mechanical and corrosion resistance performance

- 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
- Monoblock construction, up to 600 bar, or multiblock, up to 1500 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 valve NanoVALVE™, based on advanced fluid dynamics concepts, available as option
- Engineered for easy maintenance and cleaning
- Second homogenizing stage as option
- Wear parts made of tungsten carbide, ceramics as option

# GEA Ariete Homogenizer 5200

## Homogenizer & High Pressure Pump

Available up to 1500 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.

### Power end

- Cast iron power frame
- Heavy duty and reliable power frame housing the transmission elements
- AC motor drive
- Forced lubrication with gear pump, low oil pressure switch and oil cooling
- “V” belts drive and gearbox speed reduction unit
- Painted steel frame in soundproof execution

### Casing

- Made of polished stainless steel with noise reduction execution
- Noise level measured on 30.000 l/h at 200 bar at a distance of 1 m is ≤85 db (A)
- Easy access and maintenance with removable panels
- Fully separated liquid-end from drive end

### Plungers

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

### Tools and spare parts

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

### Pump valves

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

### Pressure measurement & control

- Sanitary design analog high pressure gauge
- Pressure transmitters and transducers available as option
- Overpressure relief valve installed on compression block

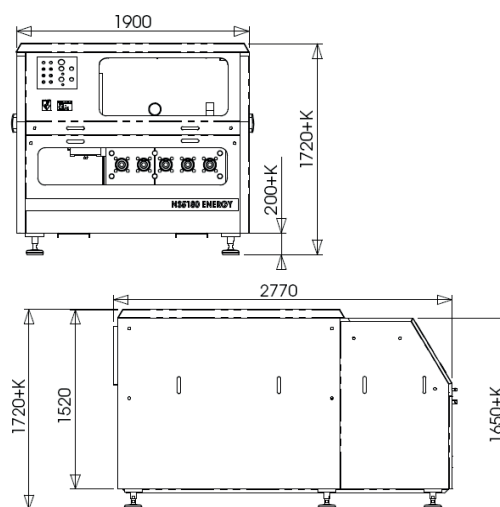
### Product line connections

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

### Main options on request

- High pressure pump version
- 2<sup>nd</sup> stage homogenizing valve
- Electric power board for fixed or variable capacity
- Machine automation and remote controls
- Aseptic execution
- 3-A execution, FDA approved gasket and cGMP documentation

### Dimensional drawing



### Performance

Pressure (bar)	Max Flow Rate (l/h)	Pressure (bar)	Max Flow Rate (l/h)
100	37.000	500	12.500
150	37.000	600	10.000
180	34.000	700	7.000
200	30.000	1000	5.500
250	26.000	1200	4.200
300	20.500	1500	3.000
400	15.000		

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

### Design features

Number of plungers	5
Stroke	100 mm
Absorbed motor power up to	200 kW
Net weight	5800 kg
Gross weight	6500 kg
Lubricating Oil for crankcase and gearbox ISO VG 150	55 l
Lubricating/cooling water (inlet @ 14°C)*	± 800 l/h

\* Air cooling unit for gearbox oil available



# GEA Ariete Homogenizer 5315

## Homogenizer & High Pressure Pump Technical datasheet

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

# GEA Ariete Homogenizer 5315

## Homogenizer & High Pressure Pump

Available up to 1500 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.

### Power end

- Rugged cast iron power frame
- 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
- Inlet manifold fitted inside case ensures considerable noise reduction
- Noise level calculated on 65.000 l/h@200bar at a distance of 1 m is <85 db and calculated at 2 m the value is <82 db
- Easy access and maintenance with removable panels
- Fully separated liquid-end from drive end
- Safe access to the auxiliary systems on board the machine
- Large front doors offer a full visibility of the process part

### Plungers

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

### Tools and spare parts

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

### 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

### Product line connections

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

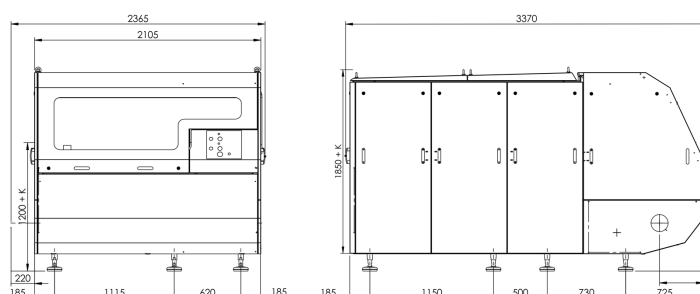
### Saving options on request

- NiSoPURE saves 90% of water and steam in aseptic productions
- NanoVALVE reduces 30% of pressure (=energy)
- OPS prevents oil waste with service time & cost savings

### Main options on request

- 2<sup>nd</sup> 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
- Automatic front door opening system
- Acoustic based service monitoring systems
- Product outlet from right side
- Double inlet manifold
- Spare part packages

### Dimensional drawing



Overall dimensions (mm)

### Performance

Pressure (bar)	Max Flow Rate (l/h)	Pressure (bar)	Max Flow Rate (l/h)
120	65.000	300	28.000
150	55.000	400	21.000
180	47.000	500	17.000
200	41.000	600	14.000
250	34.000		

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

### Design features

Number of plungers	5
Stroke	150 mm
Absorbed motor power up to	315 kW
Net weight	8.000 kg
Gross weight	9.000 kg
Lubricating Oil for crankcase and gearbox ISO VG 150	95 l
Lubricating/cooling water (inlet @ 14°C)*	± 430 l/h

\* Air cooling unit for gearbox oil available





# GEA Ariete Homogenizer 5400

## Homogenizer & High Pressure Pump Technical datasheet

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



# GEA Ariete Homogenizer 5400

## Homogenizer & High Pressure Pump

Available up to 1500 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.

### Power end

- Rugged cast iron power frame
- 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
- Inlet manifold fitted inside case ensures considerable noise reduction
- Noise level calculated on 65.000 l/h@200bar at a distance of 1 m is <85 db and calculated at 2 m the value is <82 db
- Easy access and maintenance with removable panels
- Fully separated liquid-end from drive end
- Safe access to the auxiliary systems on board the machine
- Large front doors offer a full visibility of the processing part

### Plungers

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

### Tools and spare parts

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

### 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

### Product line connections

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

### Saving options on request

- NiSoPURE saves 90% of water and steam in aseptic productions
- NanoVALVE reduces 30% of pressure (=energy)
- OPS prevents oil waste with service time & cost savings

### Main options on request

- 2<sup>nd</sup> 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
- Automatic front door opening system
- Acoustic based service monitoring systems
- Product outlet from right side
- Double inlet manifold
- Spare part packages

### Dimensional drawing

Overall dimensions (mm)

Performance			
Pressure (bar)	Max Flow Rate (l/h)	Pressure (bar)	Max Flow Rate (l/h)
120	80.000	500	22.000
150	70.000	600	18.000
180	65.000	700	15.000
200	57.000	800	12.000
250	45.000	1000	10.000
300	38.000	1200	7.000
400	28.000	1500	5.000

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

Design features	
Number of plungers	5
Stroke	150 mm
Absorbed motor power up to	400 kW
Net weight	8600 kg
Gross weight	9600 kg
Lubricating Oil for crankcase and gearbox ISO VG 150	95 l
Lubricating/cooling water (inlet @ 14°C)*	± 430 l/h

\* Air cooling unit for gearbox oil available

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