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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

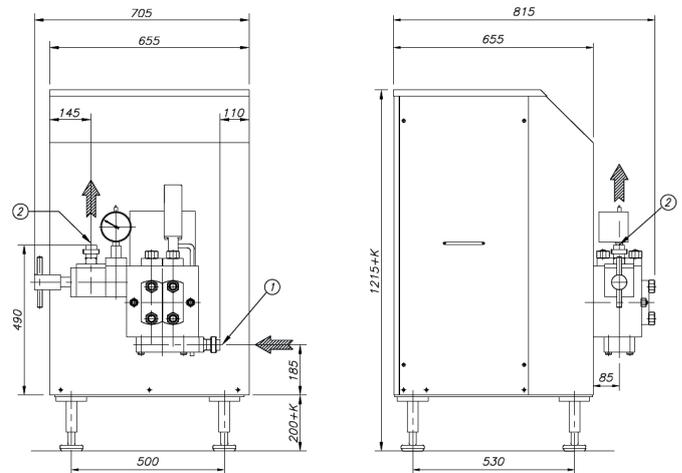
Pump valves

- 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 Tuchenhagen 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

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 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

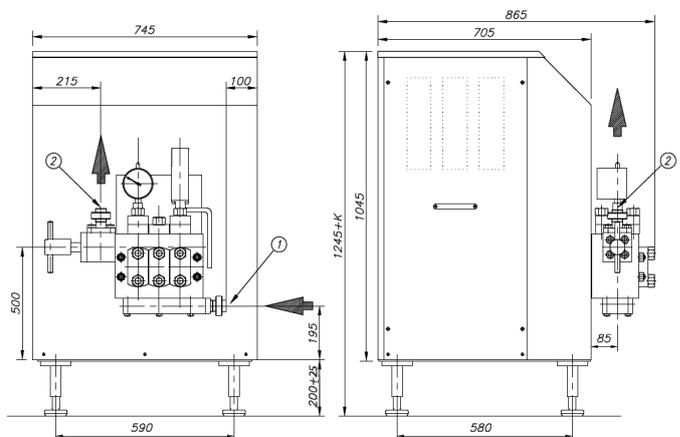
Product line connections

- 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

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

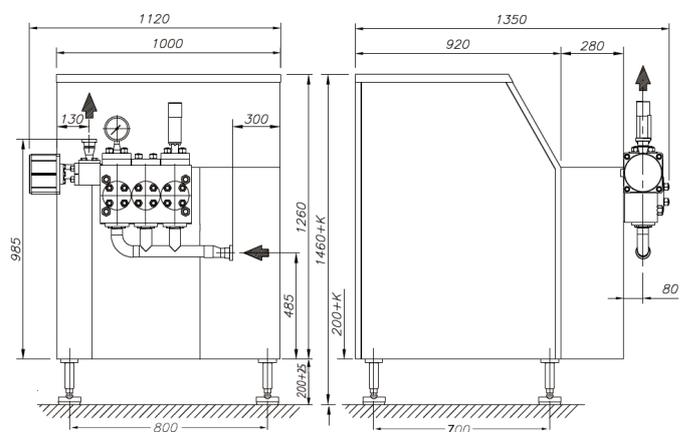
• DIN 11851, Tri-Clamp™, GEA Tuchenhagen Varivent™

- 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

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

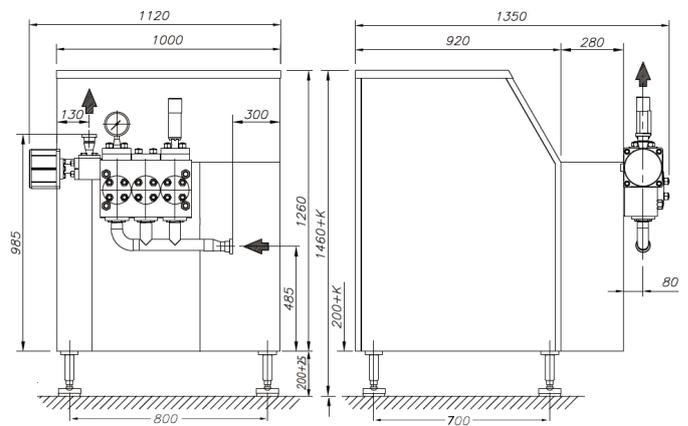
Product line connections

- DIN 11851, Tri-Clamp™, GEA Tuchenhagen 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

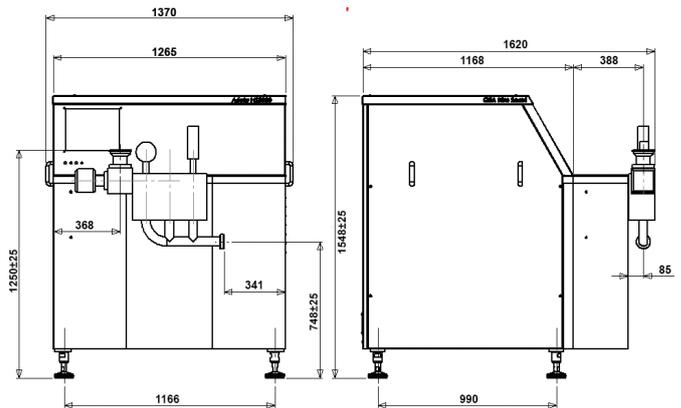
Product line connections

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

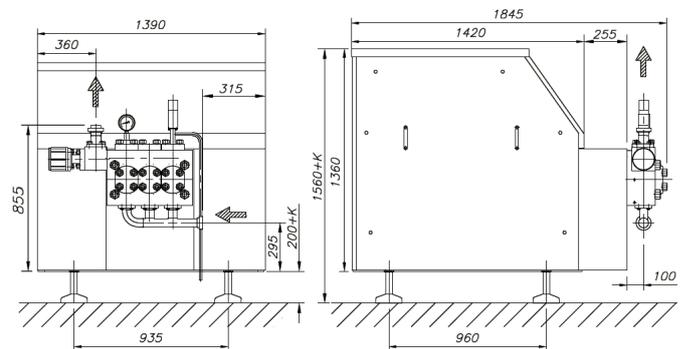
Product line connections

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

Main options on request

- High pressure pump version
- 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

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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 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

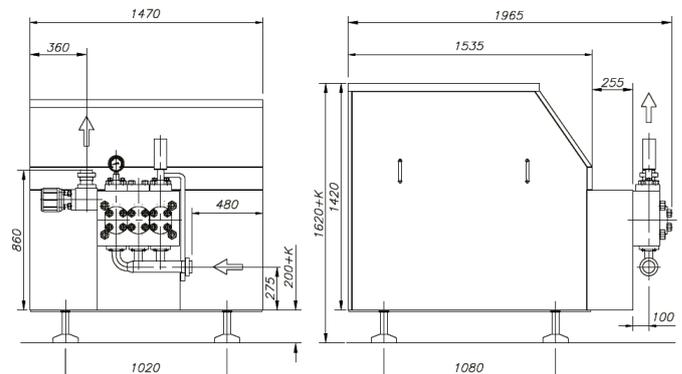
Product line connections

- DIN 11851, Tri-Clamp™, GEA Tuchenhagen 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

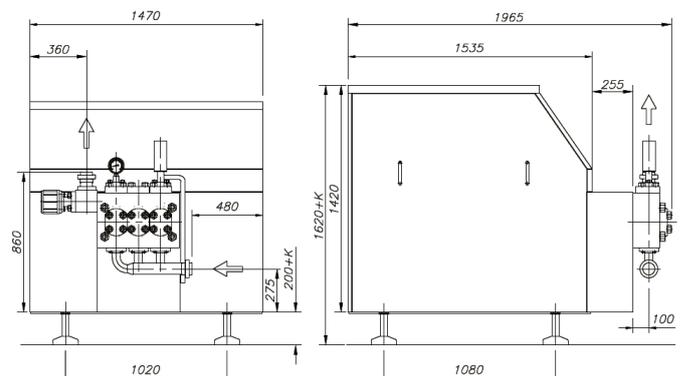
Product line connections

- 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 (≤ 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 block

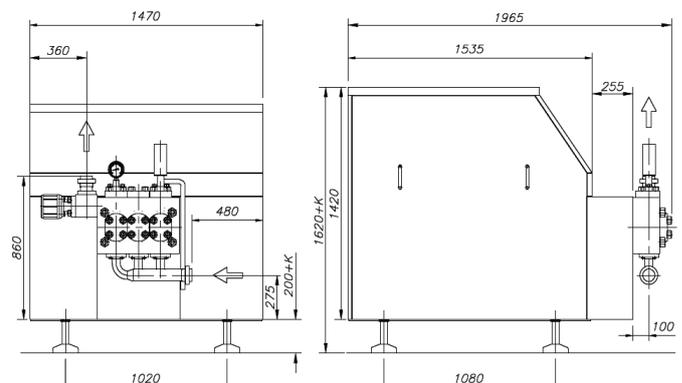
Product line connections

- 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 | 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

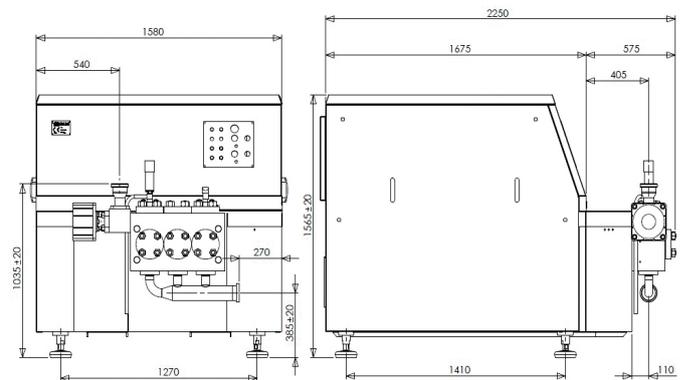
Product line connections

- DIN 11851, Tri-Clamp™, GEA Tuchenhagen 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

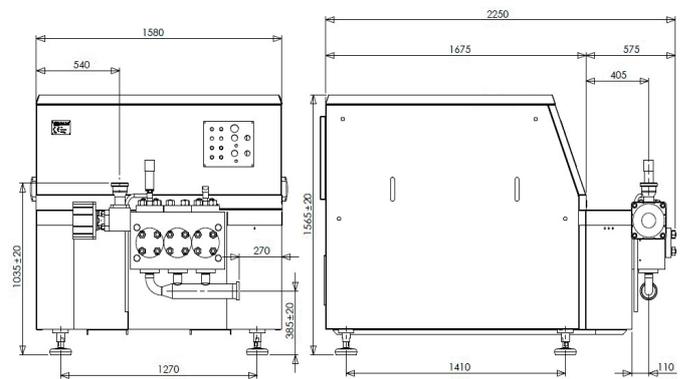
Product line connections

- DIN 11851, Tri-Clamp™, GEA Tuchenhagen 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

- 2nd 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 ₂) | 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; CO₂ emissions based on electricity production generating 0,5 kg CO₂/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

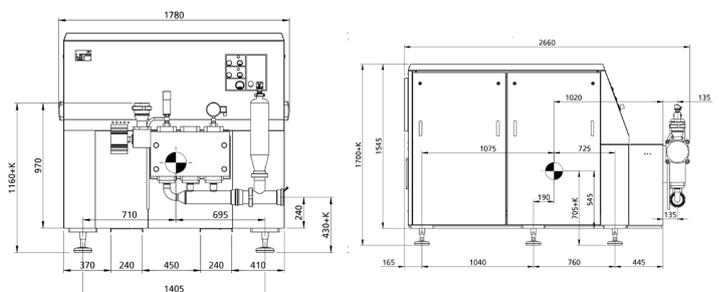
Product line connections

- 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
- 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

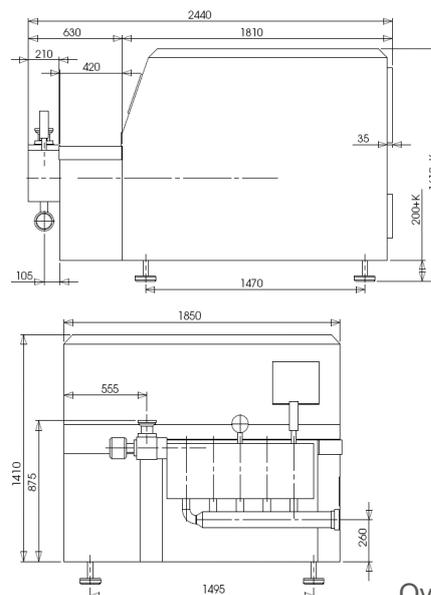
Product line connections

- DIN 11851, Tri-Clamp™, GEA Tuchenhagen 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

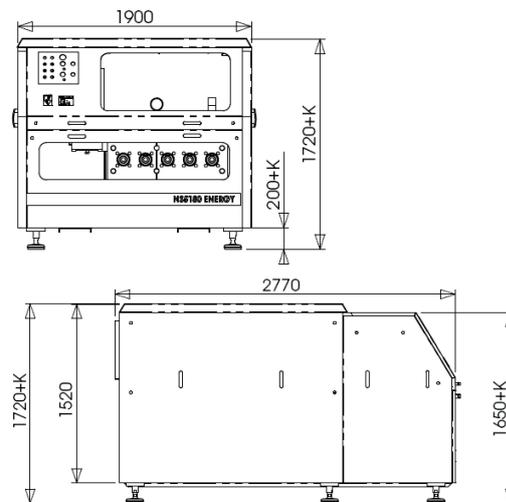
Product line connections

- DIN 11851, Tri-Clamp™, GEA Tuchenhagen 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



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

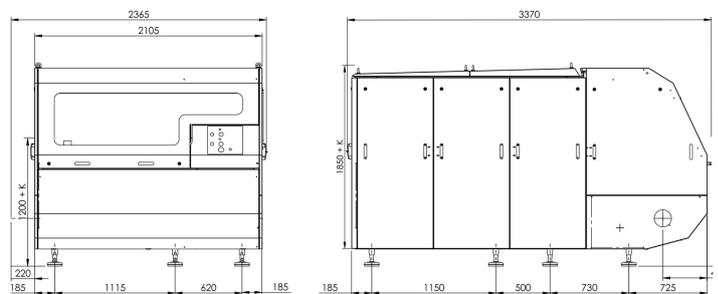
Saving options on request

- 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

- 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
- 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

- 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
- 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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