

GEA Niro Soavi Technical Datasheet

Laboratory Homogenizer

PandaPLUS 1000

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



This small table-top laboratory unit, designed for continuous operation at high pressure, is the perfect equipment for high pressure processing of nanoparticles, nanodispersions, nanoemulsions, and for cell disruption. In addition, it can be successfully used for processing dairy products, fruit juices, liquid food, food additives and ingredients as well as cosmetic and chemical products. Tests can be run even with small sample volumes, and the results are comparable with those achieved on bigger size machines.

Compression block

- High grade and high performance Super Duplex stainless steel
- Designed to ensure maximum stress resistance to maximise performance and reliability at high operating pressure
- Solid ceramic pumping piston
- No lubrication water required due to special packing design
- Suction ball valve (PVB) in ceramic, with replaceable suction valve seat in hardened stainless steel (tungsten carbide as option)
- High precision pressure transducer with 4-20 mA signal

Homogenizing valve

- Reversible wear parts in tungsten carbide, ceramic as option
- Manual pressure adjustment by hand-wheel
- Second stage homogenizing valve group supplied as standard
- Allow front/upwards/downwards outlet to match most convenient layout

Product inlet/outlet

- Tri-Clamp™ connections supplied for inline installation
- No feeding pump is needed (for product viscosity up to 1000 cP)

Power end

- Three phase motor, suitable for variable speed drive
- Camshaft drive system and maintenance-free grease lubrication

Casing

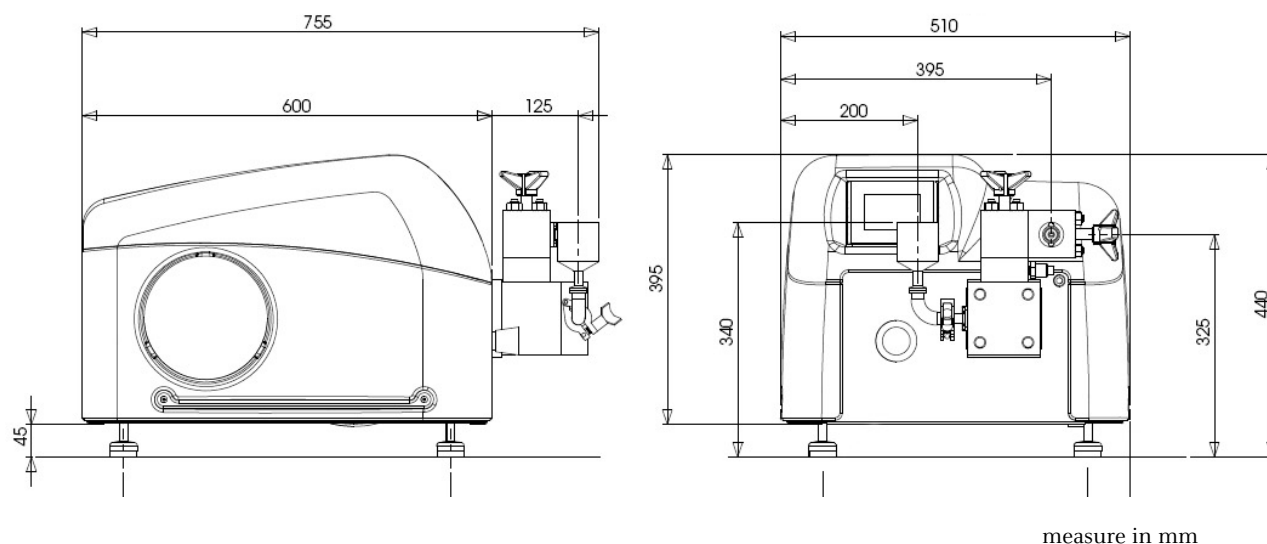
- Made in ABS, completely removable for maintenance and cleaning
- High quality stainless steel base frame
- Adjustable anti-vibration rubber feet

Control panel

- Touch screen display for machine control
- Start/stop drive control
- Pressure trend diagram visualization
- Built-in safety protection against overpressure

PandaPLUS 1000

Dimensional drawing



The compact design of PandaPLUS offers an easy installation, use and maintenance. Thanks to special material selection and liquid end design, it is suitable for abrasive and viscous products and offers reliable use of high pressure energy for new production process development and optimized product formulation. In its standard configuration, it features a touch panel for easy control of all machine functions.

Available option

- Electropolished version (Ra 0.5 µm)
- FDA approved gaskets and cGMP documentation
- In-line product cooler
- Feeding hopper with pneumatic pusher
- Aseptic execution
- Variable capacity (50% - 100%) with frequency converter
- Spare parts package

Flow Rate (l/h)	Pressure (bar)	Electrical Supply (Hz)
20	1000	50
24	1000	60

DESIGN FEATURES AND PERFORMANCES

Max operating pressure 1000 bar
Three-phase motor 2.2 kW 200 V / 50 Hz 220 V / 50 - 60 Hz 400 V / 50 - 60 Hz 460 V / 60 Hz
Net weight 105 kg
Gross weight 135 kg
Dimensions mm W 540 x H 440 x L 810
Connections in/out 1/2" Tri-Clamp™
Minimum sample volume 60 ml
Sound pressure level < 69 dB (A)
Suitable for CIP/SIP
Feeding hopper volume 0.4 l
Internal volume 20 ml

GEA Mechanical Equipment

GEA Niro Soavi

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