

TRILAB

Laboratory vacuum homogenizer

MIXING SOLUTIONS
FOR COSMETIC AND
PHARMACEUTICAL
INDUSTRIES

Develop and improve your formulations in the laboratory under production conditions.



Scan/Click to watch the demo



YOUR REQUIREMENTS

- Successful formulation of your dispersion, emulsification and homogenization processes;
- Covering a variety of applications - cosmetic emulsions, body milks, lotions, shampoos, toothpastes, sunscreens, etc.;
- Efficiently scale-up of your formulations for industrial manufacturing; and
- Laboratory equipment designed for ease of use.

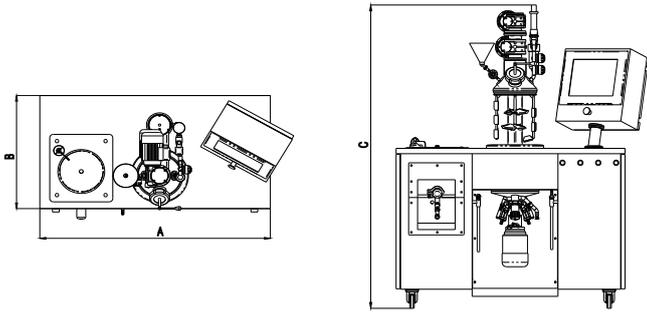
OUR SOLUTIONS

-  Thermally controlled vacuum homogenizer with triple agitation for greater versatility
-  Pilot equipment adapted to the production of small volumes
-  Data recording and control for perfect reproducibility of recipes
-  Transfer of formulations to an industrial scale
-  Mobile and compact design adapted to the laboratory environment



TRILAB

Laboratory vacuum homogenizer



Dimensions (mm)	10 L	30 L	50 L
A	1280	1400	1500
B	670	810	850
C	1705	2010	2290
Weight (kg)	350	600	650

General specifications

- 10, 30 and 50 litre capacities
- 3 independent coaxial agitation movements:
 - central agitation
 - emulsifier
 - slow peripheral movement that can work in both directions
- Double wall bowl made from (316 L) stainless steel
- Vacuum: -0.96 bar
- Pressure: 0.5 bar
- Temperature: 100°C standard
- Lifting lid in stainless steel
- Touch control panel
- Integrated power supply unit
- Integrated vacuum unit
- Integrated electric heating unit
- Utility needs:
 - Air: 0.5 bar for tank pressurization
 - Power: 400V - 50Hz - 3-phase + earth + neutral
 - Compressed air: 6 bar

Optional extras

- Integrated melter
- Traceability system integrated into the control screen
- Valve for the vacuum introduction of powders into the emulsifier
- Valve for the vacuum introduction of liquids
- Steam heating system
- PH meter / conductivity meter
- Remote maintenance via modem
- Pressure: 2 bar
- ATEX
- Temperature: 130°C
- Cleaning in place (CIP)
- Electrical supply: 440V - 60Hz or 208V - 60Hz three-phase



Preventive maintenance contract (optional extra)



INTEGRATED MIXING SYSTEM

- 3 independent and complementary agitation movements for complex mixtures:
 - homogenization by internal recirculation and high-pumping power;
 - high shear for a fine and stable emulsion (<5µm);
 - peripheral and bottom scraping for optimal homogenization and temperature control
- Full integration of functionalities allowing production operating conditions: control panel and electrical cabinet, vacuum/pressure functions, heating unit, melter (optional)
- Fast and efficient material transfer: inlet valve for powders and liquids
- Easy cleaning (CIP optional) and draining of the product under air pressure



EASE OF USE

- Space saving, compact machine
- Easily manoeuvrable mobile chassis
- Touch screen and intuitive interface for easy handling
- Electric lid lifting



VERSATILITY OF APPLICATIONS

- Wide range of applications: cosmetic emulsions, body milks, lotions, shampoos, toothpastes, sunscreens, etc.
- Wide range of tank volumes and capacities (10, 30 and 50 litres) allowing for production batches
- Production of small volumes thanks to the bottom mounted emulsifier



INDUSTRIAL SCALE-UP

- Rotors/stators that can be scaled to the whole range of VMI machines
- Design and process parameters consistent with the range of bench-top (Ultralab) and production (Trimix) mixers



RECIPE CONTROL AND REPEATABILITY

- Data logging for traceability:
 - Precise monitoring of the process phases in progress and post production traceability of the production runs
 - Quick check and simple modification of process parameters
 - Cycle programming for full process reproducibility



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