



High Pressure Liquid Homogenizer



STANDARDS

IEC 61010-1

IEC 61326-1

ISO 12100

ISO 14159

High Pressure Liquid Homogenizer - QualiHG™ Liq Series

A Homogenizer in the QualiHG™ Liq Series is a high-throughput, tube-based system built for fast liquid and semi-liquid sample homogenization. It is designed to process many samples per batch using interchangeable tube and bottle holders, helping labs standardize prep while reducing manual handling.

A 7-inch industrial touchscreen with PLC control supports repeatable methods and clear on-screen status prompts. Variable-speed control helps match shear intensity to viscosity, sample volume, and target dispersion quality.

APPLICATIONS

High Pressure Liquid Homogenizer - QualiHG™ Liq Series Applications

- Multi-sample extraction and prep for analytical testing
 - Creates uniform suspensions before downstream workflows such as chemical screening, bioassays, or instrument analysis. High batch capacity helps labs maintain throughput without sacrificing consistency.
- Food and beverage QC sample homogenization

- Supports routine breakdown of liquid and blended matrices where repeatable dispersion improves test repeatability and comparability between lots.
- Pharmaceutical and biotech formulation screening
 - Useful for dispersion and pre-emulsification screening across multiple candidate formulations, especially when you need the same shear profile across many tubes.
- Cosmetics and personal-care dispersion work
 - Helps disperse ingredients and break agglomerates during rapid bench-scale trials, supporting faster iteration on stability and texture targets.



Standards

- ISO 12100 (machinery safety, risk assessment and risk reduction).
- IEC 61010-1 (electrical safety requirements for laboratory/measurement/control equipment).
- IEC 61326-1 (EMC requirements for measurement/control/lab equipment).
- ISO 14159 (hygiene requirements for machinery design, relevant for cleanable equipment expectations).

FEATURES

High Pressure Liquid Homogenizer - QualiHG™ Liq Series Key Features

- High-throughput, batch-style processing using multiple holder options for common lab tube and bottle formats.
- Industrial HMI control with a 7-inch touchscreen and PLC for stable, repeatable operation.
- Wide variable speed range to tune shear energy for different viscosities and dispersion targets.
- Peristaltic pump liquid-addition option to standardize dosing and reduce handling steps.
- Electric ball-valve discharge design to support cleaner, faster workflow transitions.
- Tool-head flexibility with multiple tool sizes to match sample volume and processing intensity needs.
- Operator alerts via on-screen prompts and audible notifications for clearer run control.

THEORY & METHOD

Theory and Method

The QualiHG™ Liq Series uses high-speed mechanical shear to break down agglomerates and disperse liquids inside sealed tubes or bottles. A rotating tool head generates intense turbulence and shear forces that improve uniformity, shorten prep

time, and reduce operator variability. A peristaltic pump can dose liquids in a controlled way, supporting repeatable diluent or reagent addition across samples. Discharge through an electric ball valve helps streamline draining and cleanup steps.

TECHNICAL SPECIFICATIONS

High Pressure Liquid Homogenizer - QualiHG™ Liq Series Technical Specification

Specification	QualiHG™ Liq
Sample processing capacity (holder-dependent)	60 samples/batch (10/15 mL round-bottom centrifuge tubes, optional); 44 samples/batch (50 mL conical centrifuge tubes, standard); 32 samples/batch (100 mL round-bottom graduated centrifuge tubes, optional); 24 samples/batch (200/250 mL plastic centrifuge bottles, optional)
Liquid addition method	Peristaltic pump liquid addition
Liquid discharge method	Electric ball valve for liquid discharge
Peristaltic pump flow rate	1.7 L/min
Homogenizing tool options	10 × 195 mm or 19 × 195 mm
Speed range	Variable frequency speed control, 10,000–36,000 r/min
Display / control	7-inch industrial-grade touchscreen + PLC
Power	300 W



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