

M-110S Laboratory Unit For Processing Small Samples And Optimizing Product Recovery

M-110S Microfluidizer Processor, Small Volume

Recommended for:

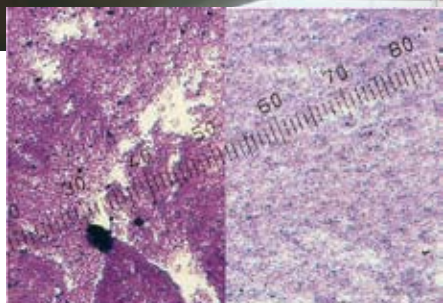
- Emulsions
- Dispersions
- Liposomes
- Cell Disruption
- Liquid-Liquid or Liquid-Solid Processing Applications

Microfluidics produces patented Microfluidizer processor equipment with high-pressure, fixed-geometry interaction chambers that impart intense energy to product formulations. The M-110S produces up to 23,000 psi with standard lab air, for premium results at an affordable cost.



Microfluidizer processors combine superior, scalable results with easy handling and small footprint

- Sample size minimum of 14 ml. with >12 ml. recovery
- Unique, geometrically fixed interaction chamber – no moving parts
- Process pressures 3,000 psi to 23,000 psi
- Air-powered, inherently explosion-proof
- Fully CE compliant base unit; inherently explosion-proof
- Portable, benchtop unit
- Removable product cooling coil and bath
- 25 ml. capacity reservoir – with integral recirculation
- R&D process results will scale to higher-volume Microfluidizer process equipment



Before processing After processing

Along with other uses, the patented Microfluidizer processor can deagglomerate and reduce particle sizes

Operating Principle

The M-110S contains an air-powered intensifier pump designed to supply the desired pressure at a constant rate to the product stream. As the pump travels through its pressure stroke, it drives the product at constant pressure through precisely defined fixed-geometry microchannels within the interaction chamber.

As a result, the product stream accelerates to high velocities, creating shear rates within the product stream that are orders of magnitude greater than any other conventional means. All of the product experiences identical processing conditions, producing the desired results, including: uniform particle and droplet size reduction (often submicron), deagglomeration and high-yield cell disruption.

A removable cooling coil and a cooling bath are incorporated into the design to promote optimal temperature control.

M-110S Specifications

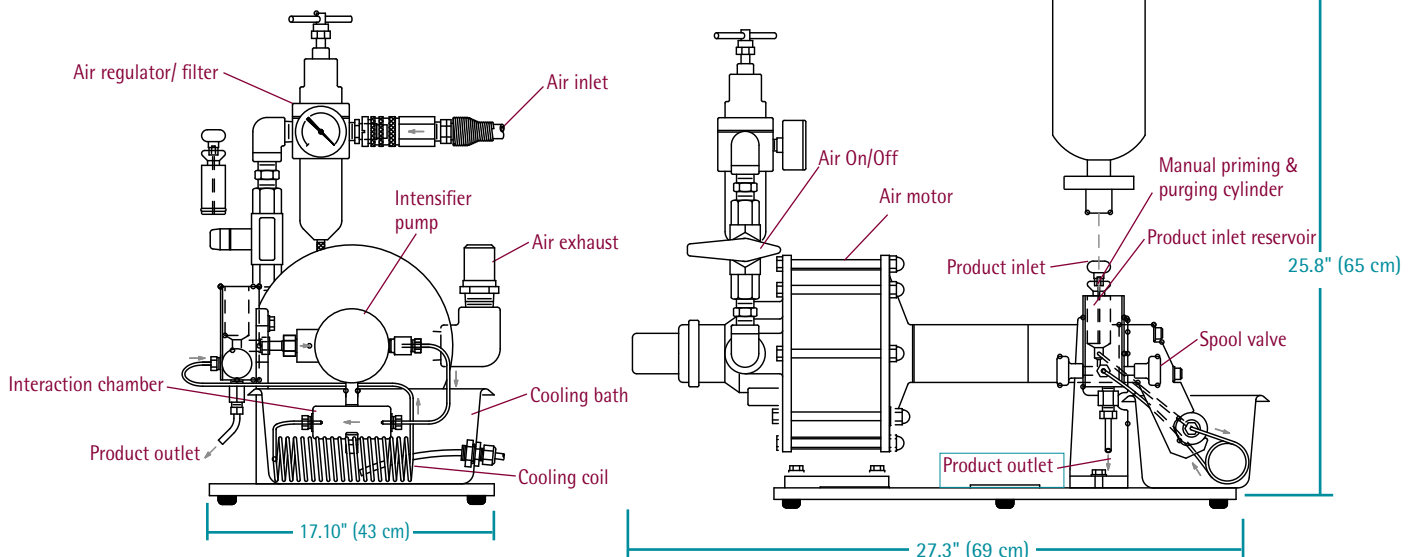
Pressure Range	3,000 to 23,000 psi (204 to 1,564 bar)
Flowrate Range	250 - 600 ml/min
Feed Temperature	Maximum 165°F (75°C)
Air Compressor Power Requirement	57 scfm @ 120 psi, (27 l/s@8.3 bar), 15 HP (11 kw), pressure dew point of -35°F to 0°F, 15 hp (11 kw)
Sample Size	14 ml. to continuous
Dimensions	23"L x 21"W x 23"H (58 x 53 x 58cm)
Weight	55 lbs. (25 kg)

Features

- 25 ml. stainless steel reservoir with manual priming, purging and pressure feed
- Ceramic Interaction Chamber assembly
- Dual position spool valve with single pass or recirculation mode
- Removable cooling coil and stainless steel cooling bath

Options

- Sanitary flush diaphragm pressure transducer with microprocessor-based, digital display indicator
- Larger capacity reservoir and adapter (400 ml.)
- Autoclavable features



Microfluidics reserves the right to change specifications without notice.



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