Microfluidics™

Superior Knowledge | Superior Results

M815

Microfluidizer™

Pilot Scale

Processor Series

IDEX
Material Processing Technologies

M815 Microfluidizer™ Pilot Scale Processor Series

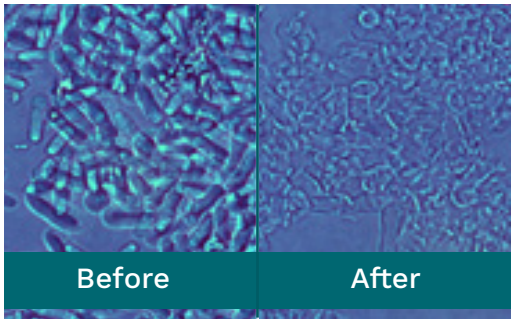
For Processing Pilot And Small Production Batches

Microfluidizer™ technology efficiently converts fluid pressure into shear forces, leading industry performance standards in high pressure processing.

A unique solution to maintaining consistent process pressure ensures 100% of your material gets exactly the same treatment. Whether you are working with small-scale lab batches or production volumes, the Microfluidizer processor is unmatched in submicron particle/droplet size reduction, cell disruption, product yield, and guaranteed process scale up.

Microfluidizer™

High efficiency cell disruption with minimal protein denaturation



Recommended For:

- Emulsions
- Dispersions
- Liposomes
- Cell Disruption
- Fine Particle Deagglomeration

Unique Benefits of the M815

- Produces product flow rates up to 1200 ml/min at 689 - 2068 bar (10,000 - 30,000 psi)
- Has small batch capability; handles a minimum sample size of 1.5 L
- Features a low product hold-up volume (1 L)
- Is CIP process capable
- Integral feed pump
- Integral heat exchanger
- Lockable casters, standard door width for easy mobility
- Meets CE compliance standards
- Standard with 7” touchscreen HMI
- Allows monitoring of key process parameters
- Facilitates non-destructive processing of heat-sensitive materials
- Has cost-effective production capability
- Assures batch-to-batch process repeatability
- Offers process pressure and temperature monitoring with local display and signal transfer to customer’s data acquisition system
- Includes on-site start-up assistance, operator and maintenance training by our technical staff

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Operating Principle

Like all Microfluidizer™ processors, the M815 utilizes the fixed-geometry Interaction Chamber™ and constant pressure pumping system. This technology allows users to achieve smaller particle sizes — with more uniform distribution and scale-up guaranteed (both from lab scale and to larger scale units) — than can be obtained with other methods.

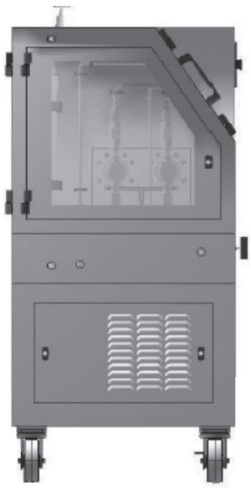
The M815 models were designed to bridge the gap between the lab scale (M110EH) and production scale (M700 Series) models, and they are ideal for manufacturing batches in the range of 100L-300L.

Standard Features

- Product feed pump, with pressure gauge and purge valve
- Diamond Interaction Chamber
- Ceramic Auxiliary Processing Module™ (APM™)
- Ceramic (Zirconia) plunger and seal quench for extended seal life
- Heat exchanger
- Stainless steel enclosure
- Gauges for measuring hydraulic drive pressure, hydraulic oil level and temperature
- Self-contained unit, mounted on locking casters for portability, standard door width
- Feed temperature range 2˚C – 75˚C (35˚F – 165˚F)
- TEFC (totally enclosed fan-cooled) motor - starter optional

Options

- Motor starter panel
- Data logger
- RTD temperature sensor
- Sanitary flush diaphragm pressure transducer with digital readout
- Product inlet strainer
- Self contained seal quench system
- IQ/OQ documentation and execution
- FAT, SAT, onsite start-up and operator training



Specifications

Pressure Range	Up to 30,000 psi (2068 bar)
Flowrate Range	1.0-1.2 L/min
Dimensions	59”L x 34”W x 79”H (150cm x 86cm x 201cm)
Weight	1950 lbs (886 kg) With Oil 1800 lbs (818 kg) Without Oil

Note: Some options may change overall dimensions and weight of the machine.

Microfluidics™

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