



Microfluidics™

Superior Knowledge | Superior Results



M815
Microfluidizer®
Pilot-Scale
Processor Series

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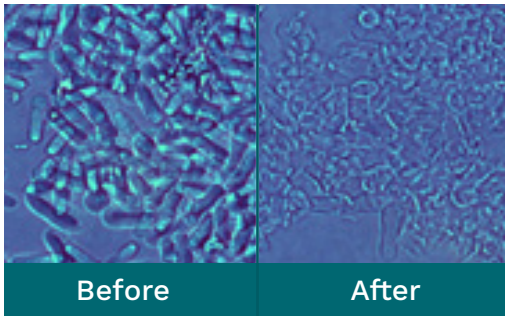
For Processing Pilot & Small Production Batches

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.



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 2068 bar (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 that displays process pressure & temperatures
- ◆ Facilitates non-destructive processing of heat-sensitive materials
- ◆ Has cost-effective production capability
- ◆ Assures batch-to-batch process repeatability



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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.

Standard Features

- ◆ Product feed pump, with pressure gauge & purge valve
- ◆ Diamond Interaction Chamber™ (IXC™)
- ◆ Ceramic Auxiliary Processing Module™ (APM™)
- ◆ Ceramic plunger with seal quench for extended seal life
- ◆ Maximum feed temperature of 158°F (70°C)
- ◆ Heat exchanger
- ◆ Stainless steel enclosure
- ◆ Gauges for measuring hydraulic drive pressure, hydraulic oil level & temperature
- ◆ Mounted on locking casters for portability, standard door width

Specifications

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

NOTE: Some options may change overall dimensions & weight of the machine.

Options

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





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Material Processing Technologies