MICROFLUIDIZER™ PROCESSOR PRODUCT LINE

Microfluidizer high-shear fluid processors offer the broadest pressure range capabilities currently available. Results obtained on all laboratory units will scale up easily and in a linear manner to production volumes when the same operating conditions are employed. Microfluidizer processors experience little or no downtime due to their durability and absence of in-line moving parts. All units are easy to use and will operate at process stream temperature ranges of -26ºC to 74ºC (-15ºF to 165ºF) with options available for higher temperatures.

LABORATORY EQUIPMENT



HC-8000

HC-2000 Pneumatic, HC-5000 Pneumatic, HC-8000 Pneumatic

The HC-2000 is our lightweight, easy to use, low pressure homogenizer. The HC-2000 is suitable for batch and continuous processing with flow rates to 2 lpm at 138 bar (20,000 psi). The HC-5000 is identical but with higher pressure capabilities (to 345 bar / 5,000 psi) and flow rates to 950 mL/min. The HC-8000 generates liquid pressures up to 552 bar (8,000 psi) and flow rates to 1 lpm.



LM10

LM10 Microfluidizer™

The LM10 possesses digital control and temperature monitoring capabilities. A removable cooling coil and cooling bath are incorporated into the design to promote optimal temperature control. The LM10 features an economical air-driven intensifier pump to supply the desired pressure at a constant rate, to the entire product stream, thereby guaranteeing consistent processing of your sample. The LM10 is an affordable solution for laboratory scale cell disruption and emulsion applications.



LM20

LM20 Microfluidizer™

The LM20 is Microfluidics' least expensive, electric drive system, operating at up to 30,000 psi. Utilizing the same unique fixed geometry interaction chambers as the flagship M-110P model, the LM20 is an affordable solution for non-cGMP Studies. Options are available to customize the LM20 in order to fulfill specific experiment requirements.



M-110Y

M-110Y High Pressure Pneumatic

The M-110Y is particularly useful on a variety of applications that require a wide range of operating pressures up to 1586 bar (23,000 psi), such as cell rupture, submicron emulsions, and shelf-stable suspensions.



LV1

LV1 Low Volume Electric

The LV1 was developed to bring Microfluidizer high shear fluid processing to the mililiter scale. This allows university, research teams, biopharma companies and others to process as little as 1 mL of their expensive ingredients and materials.



M-110P

M-110P Plug and Play Electric Benchtop

Powered by standard 20 amp single phase electrical outlet, the M-110P requires no compressed air and no hydraulic cooling water to achieve up to 2000 bar (30,000 psi) operating pressure. It also fits under a standard laboratory chemical hood. A small volume model (M-110PS) is available. All are CE compliant.



M-110EH-30

M-110EH-30 Electric-Hydraulic

The M-110EH-30 is specifically designed for those customers that prefer an electrically-driven unit over a pneumatically-driven one. The unit reaches processing pressures as high as 2000 bar (30,000 psi) and is mounted on locking casters for mobility. A small volume model (M-110EH-30S) and explosion-proof model (M-110EH-30XP) are available.

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M-700



M-710

PILOT/PRODUCTION EQUIPMENT

M-700 Series

The M-700 Series offers pilot and production performance levels for commercial applications including pharmaceutical and biotech products (requiring UCIP and SIP), coatings, waxes, inkjet inks, pigments, sealants, and more. The units are available in 11.3 kw (15 hp), 18.7 kw (25 hp), and 37.5 kw (50 hp) models. The 37.5 kw (50 hp) model is available in the Constant Pressure (CP) version. The units are housed in a stainless steel enclosure.

M-710 Series

The M-710 is a 75 kw (100 hp) processor capable of producing flow rates from 7.6 lpm (2 gpm) at 2760 bar (40,000 psi) to more than 57 lpm (15 gpm) at 345 bar (5,000 psi). Units are housed in a stainless steel enclosure. The M-710 is available in the Constant Pressure (CP) version.

SPECIFICATIONS

Model	Pressure Range	Flow Rate Range	Power Requirement for Compressor	Sample Size	Dimensions (Height x Width x Depth)	Weight
HC-2000 Sanitary Pneumatic	17-138 bar (250-2,000 psi)	100-2,000 mL/min	13 l/s @ 5.5 bar (28scfm @ 100 psi) 5.5 kw (7.5 hp)	100 mL to continuous	51x44x44 cm (20"x17"x17")	16.8 kg (37 lbs)
HC-5000 Sanitary Pneumatic	34-345 bar (500-5,000 psi)	100-950 mL/min	13 l/s @ 6.3 bar (28scfm @ 100 psi) 5.5 kw (7.5 hp)	100 mL to continuous	51x44x44 cm (20"x17"x17")	16.8 kg (37 lbs)
HC-8000 Sanitary Pneumatic	69-552 bar (1,000-8,000 psi)	100-1,000 mL/min	26 l/s @ 5.8 bar (56scfm @ 100 psi) 11 kw (15 hp)	250 mL to continuous	58x38x58 cm (23"x15"x23")	26.7 kg (59 lbs)
LM10 Digitally Controlled	1546 bar (23,000 psi)	250-600 mL/min	27 l/s @ 8.3 bar (57scfm @ 120 psi) 85-260 VAC / 50 or 60 Hz 5 amps	14 mL to continuous	48x48x69 cm (19"x19"x27")	34 kg (75 lbs)
LM20 Digitally Controlled	2068 bar (30,000 psi)	60-100 mL/min	208-230/460V, 60 Hz, 3PH (190-220/380-415V, 50Hz, 3Ph)	14 mL to continuous	58x84x69 cm (23"Hx33"x26")	114 kg (250 lbs)
M-110Y High Pressure	206-1586 bar (3,000-23,000 psi)	100-450 mL/min	26 l/s @ 5.0 bar (56scfm @ 110 psi) 11 kw (15 hp)	60 mL to continuous	76x41x28 cm (30"x16"x11")	25 kg (55 lbs)
LV1 Low Volume Electric	138-2068 bar (2,000-30,000 psi)	2 strokes/min	110 VAC / 50 or 60 Hz 10 amps or 220 VAC / 50 or 60 Hz 5 amps	1 - 6 mL per stroke	51x65x60.2 cm (20"x 25.8"x 23.7")	109 kg (240 lbs)
M-110P BBP Electric Plug & Play	138-2068 bar (2,000 to 30,000 psi)	up to 120 mL/min (60Hz) up to 100 mL/min (50 Hz)	60 Hz/120 VAC/20 Amp 60 Hz/230 VAC/10 Amp 50 Hz/220 VAC/12 Amp	36 mL to continuous	101.5x68.5x60cm (40"x27"x23.5")	136 kg (300 lbs)
M-110P v3 Electric Plug & Play	138-2068 bar (2,000 to 30,000 psi)	up to 120 mL/min (60Hz) up to 100 mL/min (50 Hz)	60 Hz/120 VAC/20 Amp 60 Hz/230 VAC/10 Amp 50 Hz/220 VAC/12 Amp	31 mL to continuous	94x71x56cm (37"x28"x22")	134 kg (295 lbs)
M-110EH-30 Electric-Hydraulic	344-2068 bar (5,000-30,000 psi)	100-400 mL/min	3-phase electric service 3.7 kw (5 hp) (available as explosion-proof)	120 mL to continuous	148x79x84 cm (58"x31"x33")	205 kg (450 lbs)
M-110EH-30S Electric-Hydraulic	344-2068 bar (5,000-30,000 psi)	100-400 mL/min	3-phase electric service 3.7 kw (5 hp)	25 mL to continuous	148x79x84 cm (58"x31"x33")	205 kg (450 lbs)
M-700 Series Pilot/Production	Up to 2760 bar (40,000 psi)	Up to 15 lpm (4 gpm)	3-phase electric service 11, 18.6, or 37 kw (15, 25, 50 hp)	7 liters to continuous	163x74x180 cm (64"x29"x71")	675-900 kg (1500-2000 lbs)
M-710 Series Pilot/Production	Up to 2760 bar (40,000 psi)	Up to 57 lpm (15 gpm)	3-phase electric service 75 kw (100 hp)	15 liters to continuous	193x122x275 cm (76"x48"x108")	3182 kg (7000 lbs)