Split System

Electric-Hydraulic Microfluidizer Processor For When Hydraulics and Controls Need To Be In Separate Rooms

Processing Module

Clean Room / Quiet Room

Power Module

Hydraulic Side / Remote Area

Split System Microfluidizer® Processor (available option for all M-700 Series models)

Recommended for:

- **Clean Room Operation**
- **Hazardous Environments**
- **cGMP Environments**
- **Confined Production Areas**

To avoid the requirements for hazardous environments and to address contamination, audible noise and limited space issues, Microfluidics has introduced a split configuration version for all M700 Microfluidizer processors.

The uniqueness of the basic Microfluidizer processor design allows the Power Module to be separated from the Processing Module. The Power Module, which includes the electric motor, a cooling fan, the hydraulics, hydraulic oil reservoir and hydraulic cooling system can now be remotely located up to 30 feet away and outside the production area.

The Processing Module itself is intrinsically safe with no electrical requirements. It can safely operate within any hazardous area since it relies only on pneumatics and hydraulics supplied by interconnecting lines from the remote Power Module.

By splitting the Microfluidizer processor, it is easier to control atmospheric conditions within the processing area where the motor cooling fan no longer circulate contaminants within the clean room. Audible noise levels are well below OSHA limits thus eliminating the need for awkward hearing protection for the operators.

The Split System offers the same features, options and accessories as the standard integral models

- Process pressure to 40,000 psi (2760 bar)
- Flow rates to 8 gpm
- For use as pilot or production scales
- Patented, wear resistant, ceramic interaction chamber - no moving parts
- Ultra-Clean-In-Place with no disassembly required
- Steam-in-Place
- CE compliant (Europe)

Microfluidics™

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Specifications for Split M-700 Series Microfluidizer Processors.

A full brochure is available for standard M-700 Series

	M-7115	M-7125	M-7250	M-710
Pressure Range	up to 40,000 psi (2759 bar)			
Flowrate	up to .9 gpm (3.4 lpm)	up to 1.8 pgm (6.8 lpm)	up to 3.6 gpm (14.6 lpm)	up to 8 gpm (30 lpm)
Feed Temperature	Maximum 165ºF (75ºC)			
Power Requirements	3 phase electrical service, 208/230/460V			
	15 HP (11.1 kw)	25 HP (18.5 kw)	50 HP (37 kw)	100 HP (75 kw)
Utility Requirements	Cooling water for hydraulic oil heat exchanger and process fluid heat exchanger, compressed air (50-150 psi 1 scfm@ 50 psi, pressure dew point of 0-35ºF)			
Dimensions -Processing Module	29"L x 71"W x 57"H (74 x 180 x 145 cm)			96"L x 44"W x 46"H (244 x 112 x 72 cm)
-Power Module	29"L x 71"W x 57"H (74 x 180 x 145 cm)			
Weight -Processing Module	660 lbs (300 kg)	660 lbs (300 kg)	880 lbs (400 kg)	2620 lbs (1190 kg)
-Power Module	1,100 lbs (500 kg)	1,200 lbs (550 kg)	1,400 lbs (650 kg)	4380 lbs (1990 kg)

Standard Features

- Fixed-Geometry Interaction Chamber Employs No Moving Parts - abrasion-resistant ceramic or optional diamond construction.
- Highly Durable Intensifier Pumping System - efficient at ultrahigh pressures.
- High-Pressure Plunger Seals and Check Valves - made to withstand abrasive and corrosive formulations. Both seals and check valves are accessible and can be replaced easily.
- Open Isolator - prevents process fluid and hydraulic fluid contact.
- Simple and Efficient Electric/Hydraulic Drive System.
- Stainless Steel Frame and Enclosure - protects the high pressure components from damage, contains spills and features panels which are easily removable.
- Coned and Threaded Tubing and Fittings - these connections provide a high degree of reliability and in-line cleaning convenience.
- Materials of Construction of wetted parts: 316 Stainless Steel, alumina, Ultra high molecular weight polyethylene (UHMWPE), Teflon® (PTFE), polyetheretherketone (PEEK), 17.4 PH Stainless Steel, Nitronic 60, 15.5 PH Stainless Steel

Pressure psi (bar)

5000 (345)	7115-10 0.9 gpm (3.4 lpm)	7125-10 1.8 gpm (6.8 lpm)	7250-10 3.6 gpm (14.6 lpm)	710-10 8 gpm (30 lpm)
10,000 (690)	7115-20 0.45 gpm (1.7 lpm)	7125-20 0.9 gpm (3.4 lpm)	7250-20 1.8 gpm (6.8 lpm)	710-20 4 gpm (15 lpm)
15,000 (1034)				
20,000 (1380)	7115-30 0.25 gpm (1.2 lpm)	7125-30 .65 gpm (2.0 lpm)	7250-30 1.1 gpm (2.0 lpm)	710-30 2 gpm (8 lpm)
25,000 (1725)				
30,000 (2069)				

All flow rates are at maximum pressure and are approximations on water.

Microfluidics™

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