

FUNDAMIX®

Vibratory mixing pilot units for rental and purchase



DrM

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Equipment options

The FUNDAMIX® is a sophisticated mixing device where the mixing effect is generated by high frequency vibration created by an electromagnetic drive. The vibration is transferred through the length of a shaft to a perforated mixing plate with conical bores. The oscillation of the plate causes the liquid to be pumped through the conical holes, creating a flow according to the Bernoulli effect.

Lab scale tests can be meant to investigate a few basic parameters (homogenization efficiency, possibility to achieve a shear-free mixing, capability of suspending settling or floating solids, etc.) or can simulate a whole process (crystallization, fermentation, heat transfer, pH control). We can provide laboratory sets and accessories for special applications or complete customized systems based on the exact client's requirements for rent or purchase.



FUNDAMIX® GLASS / STAINLESS STEEL REACTOR

For a ready to use laboratory or small scale production system the FUNDAMIX® size 1 can be supplied with a broad range of glass reactors to meet your process needs, combining the assembly with our range of control systems allows full versatility with optional amplitude regulating/ monitoring.

The key components have been designed in accordance with the food and drug industry sterile design guidelines offering a wide variety of materials to suit most application needs.

Complete with full documentation including material and FDA certificates for the components in contact with the product.

FUNDAMIX®	Size 1
Mixing Volume (lt)	0.5 - 20 (with or without heating jacket)
Membrane sealing unit	Atmospheric / Vacuum
Membrane material	EPDM/PTFE / Silicone / Neoprene
Power Supply Voltage (V), Frequency (Hz)	110-220, 50-60
Vibration Frequency (Hz)	Approx. 100
Max. Amplitude (mm)	3 - 3.5
Mixing plate diameter (mm)	23, 45, 54, 65
Mixing plate material	SS 316L*
Shaft length (mm)	400 / 500 / 600 (with or without gas insertion)
Controller	FUNDAMIX® Control Cabinet / AC 1-3
	Complete with operating manual, material certificates, FDA certificates.
Note	The design can be tailor made upon request.
	*Upon request, mixing devices can be supplied in PVDF or PEEK.

FUNDAMIX® LAB SET

881533.00

This lab set is the perfect solution for lab scale experiments in order to analyse a mixing process with the ability to accurately upscale to our larger devices for production. The lab set includes everything you need to analyse numerous mixing processes, including adjustable mixing plates, mixing shafts (with and without gas insertion) and a selection of atmospheric membranes.

*Upon request the lab set can be tailored to meet your mixing needs.

FUNDAMIX®	Size 1
Mixing Volume (lt)	1-10
Pressure	Atmospheric
Voltage (V), Frequency (Hz)	110-220, 50-60
Vibration Frequency (Hz)	Approx. 100
Max. Amplitude (mm)	3 - 3.5
Mixing plates diameter (mm)	23, 45, 54, 65
Mixing plates material	SS 316L
Shaft length (mm)	400 (with and without gas insertion)
Amplitude Controller	AC 1-3
Note	For special cases, disk in PVDF or PEEK can be provided

FUNDAMIX® DEMO SET

881500.00

Like the lab set the FUNDAMIX® Demo Set is an all-in-one solution to analyse mixing processes. The supplied 4L rounded wide neck flask provides ideal flow paths to quickly homogenise a solution, the modular design allows for numerous mixing configurations to be examined.

FUNDAMIX®	Size 1
Mixing Volume (lt)	4 (Rounded wide neck flask)
Membrane sealing unit	Atmospheric
Membrane material	Silicone / Viton / EPDM
Power Supply Voltage (V), Frequency (Hz)	110-220, 50-60
Vibration Frequency (Hz)	Approx. 100
Max. Amplitude (mm)	3 - 3.5
Mixing plate diameter (mm)	65
Mixing plate material	SS 316L
Shaft length (mm)	400
Controller	AC 1-3



FUNDAMIX® CONTROL CABINET

The FUNDAMIX® Control Cabinet combined with the optional accelerometer enables full control of the mixing system providing a number of functions directly from the front control panel. The amplitude can be set manually or maintain a defined set point using the automatic mode, optimisation of the system is possible by means of the frequency functions that allow the resonance frequency to be reached resulting in optimal mixing performance.

Parameter adjustment from an external PLC control is also possible using the available connections.

FUNDAMIX®	Size 1 / 2 / 3 / 3+
Power Supply Voltage (V), Frequency (Hz)	110-220, 50-60
Sensor (Amplitude measurement)	Accelerometer
	The control cabinet offer the following functions:
Note	<ul style="list-style-type: none">Manual and automated amplitude controlManual and automated frequency adjustmentAmplitude alarm settingsAmplitude calibrationPLC Mode (for external connection)



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