

# FUNDAMIX®

Vibratory mixing pilot units for rental and purchase



**DrM**

[www.drmgroupp.com](http://www.drmgroupp.com)

# 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® 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.

<b>FUNDAMIX®</b>	Size 1
<b>Mixing Volume (lt)</b>	1-10
<b>Pressure</b>	Atmospheric
<b>Voltage (V), Frequency (Hz)</b>	110-220, 50-60
<b>Vibration Frequency (Hz)</b>	Approx. 100
<b>Max. Amplitude (mm)</b>	3 - 3.5
<b>Mixing plates diameter (mm)</b>	23, 45, 54, 65
<b>Mixing plates material</b>	SS 316L
<b>Shaft length (mm)</b>	400 (with and without gas insertion)
<b>Amplitude Controller</b>	AC 1-3
<b>Note</b>	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.

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



## 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.

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

## 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.



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



# Headquarters and Subsidiaries

## Switzerland (HQ)

DrM, Dr. Mueller AG  
Alte Landstrasse 415  
8708 Maennedorf, Switzerland

Tel. +41 44 921 2121  
Fax +41 44 921 2131

mailbox@drm.ch  
**www.drmgroup.com**

## China

DrM Shanghai Co., Ltd.  
Building 2  
No. 18 Rong Xin Road  
Xinqiao, Song Jiang District  
Shanghai 201612, China

Tel. +86 21 5768 7390  
Fax +86 21 5768 7391

## Poland

DrM Polska Sp. z o.o.  
Al. Kazimierza Wielkiego 5  
PL87-800  
Wloclawek, Poland

Tel. +48 54 237 2921  
Fax +48 54 237 2931

## India

DrM Filter Technology Pvt. Ltd.  
Plot 46 – 1 & 2  
Hansot Road Village  
Pungam, Ankleshwar  
Bharuch, Gujarat,  
393020, India

Tel. +91 2646 652775/6

## USA

DrM, Inc.  
2125 Center Ave.  
Suite 507  
Fort Lee NJ 07024, USA

Tel. +1 201 302 0667  
Fax +1 201 302 6062

## Malaysia

DrM, Dr. Mueller AG  
SEA Regional Office  
No. 13 Jalan SE 2B  
Sunway Eastwood  
Taman Equine  
Seri Kembangan  
43300 Selangor, Malaysia

Tel. +60 3 8940 4917  
Mob. +60 17 394 056