

# DB25M+DB50M High Shear Lab Mixers

The DB25M and DB50M range of rotor-stator high shear mixers use Maelstrom's patented Fluid Division Mixing (FDM) technology to deliver exceptional levels of performance for laboratory mixing.

The unique rotor and stator geometry develops strong hydraulic shearing actions in the mixing head. These give increased levels of mixing energy and micro-scale blending actions in the fluid, when compared to conventional rotor-stator mixers.

With a manual lift column, simple user controls and dual data displays, the DB25M and DB50M provide exceptional performance in a flexible and economical package.

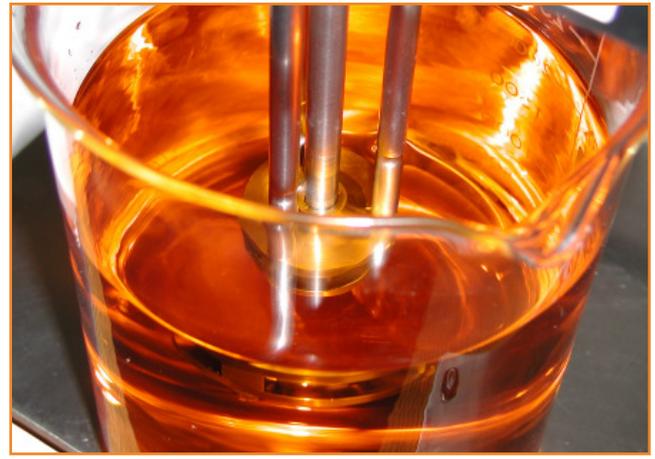


lab batch  
mixer range

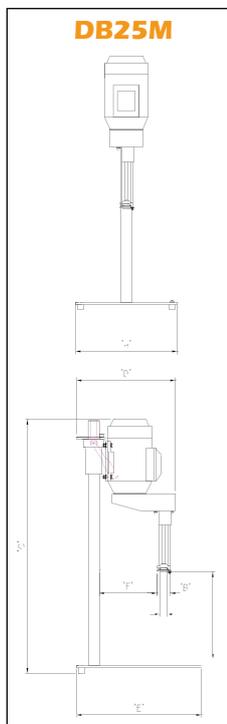


- intense shearing action
- high speed (to 14,400rpm)
- simple controls
- easily cleanable
- interchangeable heads
- versions for abrasives
- flameproof versions

- Dispersing
- Homogenising
- Rapid blending
- De-agglomerating
- Emulsifying
- Reacting
- Powder addition

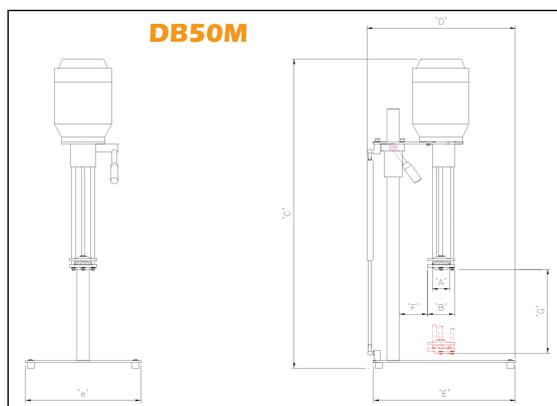


lab batch  
mixer range



		<b>DB25M</b>	<b>DB50M</b>
Typical Dimensions	mm		
A		25	50
B		41	76
C		725	920
D		520	420
E x e		400 x 325	400 x 325
F		180	80
G		250	250
Weight	kg (lbs)	20 (44)	28 (62)
Typical maximum mixing volume at low viscosity (e.g. water)	litres	5	10
	gals	1.5	2.5
Typical maximum mixing volume at high viscosity (e.g. thick cream)	litres	2	4
	gals	0.5	1
Viscosity range (approx.)	Pa.s (cP)	0.0001 (0.1) - 30 (30,000)	
Motor power range (standard*)	kW (hp)	0.37(0.5)	1.1(1.5)
Rotor speed (typical max.)	rpm	14400	6000

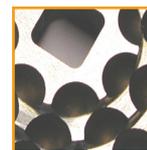
\*Larger and non-standard motors available on request



**Typical Construction Materials**



316 stainless



Toolsteel



Zirconia ceramic

**Details**

Mixing head configuration	Standard: 2/3 (2 cavity rows on stator, 3 on rotor) Options: 3/4 and 4/4 heads available
Construction materials	<u>Wetted parts</u> - 300 series stainless steel standard (other materials such as titanium, HASTELLOY® and ceramics are available on request) <u>Bearings</u> - lower polymer bush (FDA-approved material) upper rolling element bearings standard. Note that the standard mixer must NOT be run dry. <u>Base and Housing</u> - stainless steel baseplate, painted steel housing
Controls	- Mains on/off - Start / stop pushbuttons - Speed & load displays - Speed control potentiometer
Electrical supply	120V or 220-240V, 50/60Hz, single phase supply to controller
Options	<u>Hygienic</u> - to meet the requirements of cGMP and other standards  <u>Flameproof</u> - to meet ATEX or other national requirements



Example of custom DB50M system for pigment processing experiments

The physical and performance specifications in this leaflet are not intended for accurate sizing and selection of machines. Please contact Maelstrom APT or its agents directly for a selection appropriate to any particular mixing application. HASTELLOY® is a registered trademark of Haynes International Inc.



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