LDM SERIES

Drum Mixers

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Passion for Pumps™

Pumping Solution

LDM DRUM MIXERS

INTRODUCTION

The Lubi **LDM** series portable drum and tank mixers have been designed, engineered and built to provide long life and trouble-free service in a wide variety of blending/mixing operations.

These mixers are mainly used to:

- ❒ Blend liquids
- ❒ Suspend or dissolve liquids
- ❒ Disperse immersible liquids
- ❒ Disperse small amounts of gases in liquids.

Lubi drum mixers can be mounted by either screwing into the bung opening or by mounting on the drum lip. Tank mixers can be mounted by clamping to the tank or container wall. Angle of entry may be adjusted to meet specific mixing requirements.

These are lightweight, handy and extremely powerful devices suitable for different industrial applications like waste treatment, water treatment and batch chemical preparation.

These are also ideal for mixing paints, varnishes, polymers, textile dyes, pharmaceuticals, soaps and countless other materials from 1 to over 1000 cps viscosity.

The basic components of LDM series mixers are:

- ❒ Electric motor
- ❒ Stainless steel AISI 316 shaft
- ❒ Stainless steel AISI 316 propeller
- ❒ Bung adaptor or mounting bracket

Drum mixers are available in four basic versions as described below:

- ❒ Bung mounted drum mixer - LDMB series
- ❒ Lip mounted bung entering drum mixer - LDML series
- ❒ Bung mounted IBC mixer - LDMG series
- ❒ Heavy-duty tank mixer - LDMH series

The special turbine blade profile maximizes material movement at all rpm. When rotating, the propeller generate a vortex directed downward along the shaft, forcing the liquid to the bottom, where the sediment is to be dislodged.

In the following pages, we present all technical specifications and other information which helps to select proper mixer for proper application, depending of the batch and viscosity of the liquids.

Our mixers are available at either 294/378 rpm (gear driven) or 1450 rpm (direct drive).

MIXER MOUNTING AND POSITIONING

In most applications involving small mixing tanks of 3800 lit. (1000 gallons) or less, the mixer is clamped to the side of the tank.

Optimum mixing will be achieved when the mixer is angled from the tank wall, either off center (fig. 1) or on center (fig. 2).

Improperly mounting a portable mixer will greatly lessen mixing efficiency, cause vibration and could possibly damage the mixer.

Angling off center is preferred when good material turnover is required, as in mixing a slurry. Angling on center is desired for more gentle mixing and when vortexing must be minimized.

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MIXER MOUNTING AND POSITIONING

Larger size tanks may require that a mixer be mounted directly in the center of the tank with the shaft vertical (fig. 3).

When a mixer is used in this arrangement, baffles are recommended to prevent the contents of the tank from turning in the direction of the mix. If this occurs, mixing action will be poor.

Such baffling will avoid vortexing and allow mixing to be as thorough as possible.

Lubi suggests that four baffles be used, located 90° apart and sized approximately 1/12 of the tank diameter.

The baffle should not fully extend to the bottom of the tank and a gap should be provided between the baffle and the tank wall.

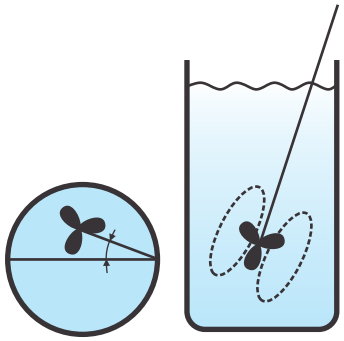


FIG. 1 ANGLING THE PORTABLE MIXER OFF CENTER IS THE POSITION RECOMMENDED BY LUBI FOR RAPID TURNOVER OF TANK CONTENTS & GOOD BOTTOM WASHING

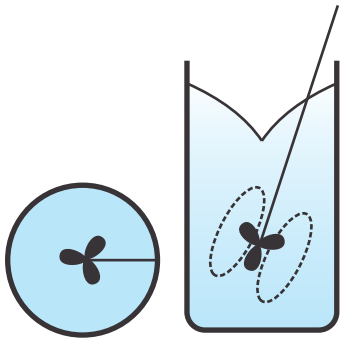


FIG. 2 ON CENTER ANGLING WILL PRODUCE GOOD MIXING WITH MINIMUM VORTEXING. TANK CONTENTS TURN OVER THOROUGHLY BUT GENTLY.

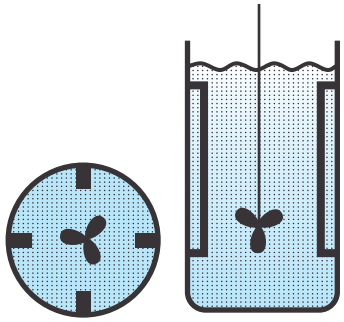
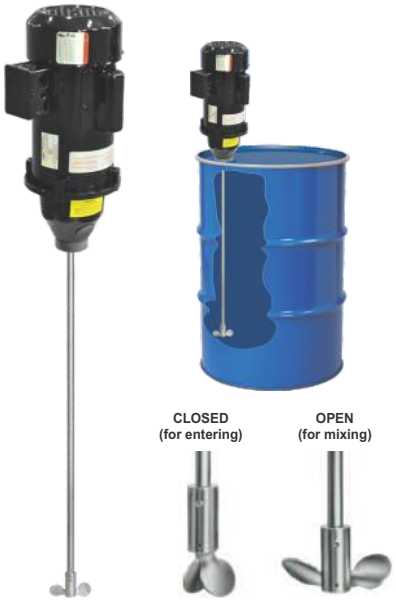


FIG. 3 FOR MIXING IN LARGER TANKS, THE MIXER IS OFTEN PLACED VERTICALLY ON CENTER. IN THIS CONFIGURATION, BAFFLES ARE RECOMMENDED TO PREVENT THE CONTENTS OF THE TANK FROM ROTATING, AVOID VORTEXING AND ACHIEVE GOOD MIXING AND TOP-TO-BOTTOM TURNOVER.

LDM DRUM MIXERS

LDMB - BUNG MOUNTED DRUM MIXER



● APPLICATIONS

LDMB mixers are design to provide service for a variety of mixing applications.

These drum mixers are suitable for mixing/blending low viscosity fluids & suspending or dissolving low concentrations of solids in water or water like liquids including light oils and syrups.

● FEATURES AND BENEFITS

- ❒ Made out of stainless steel AISI 316 propeller, shaft and set screws
- ❒ Mount directly on 2” bung opening on 208 lit. (55 gallons) drums
- ❒ Operates by continuous standard single-phase TEFC (Totally Enclosed Fan Cooled) motor
- ❒ For mixing low viscosity liquids in closed head drums
- ❒ Folding propeller opens to 95 mm (3-3/4”) when mixer is in operate
- ❒ High quality components
- ❒ Light weight, portable
- ❒ Easy to install, user friendly operation
- ❒ Cost effective mixing
- ❒ Few parts - maintenance friendly
- ❒ Long lasting.

● TECHNICAL SPECIFICATIONS

MODEL	LDMB
Mixer type	Bung entering, bung mounted drum mixer
Motor type	TEFC (Totally Enclosed Fan Cooled)
Rating	0.50 HP/0.37 kW
Phase	1
Voltage	230 V
Supply frequency	50 Hz
Rated speed	1450 rpm
Shaft dia.	15.88 mm (5/8”)
Shaft length	736 mm (29”)
Mounting bracket	Threads into bung
Propeller	Collapsible blade type, open to 95 mm (3-3/4”) dia. when mixer is in operation
Shaft	Stainless steel AISI 316
Blades	Stainless steel AISI 316
Set screws	Stainless steel AISI 316
Bung adaptor	Cast iron
For use on	Closed head 208 lit. (55 gal.) drums

LDML - LIP MOUNTED BUNG ENTERING DRUM MIXER

● APPLICATIONS

LDML mixers are design to provide service for a variety of mixing applications.

These drum mixers are suitable for mixing/blending low viscosity fluids & suspending or dissolving low concentrations of solids in water or water like liquids including light oils and syrups.

● FEATURES AND BENEFITS

- ❒ Made out of stainless steel AISI 316 propeller, shaft and set screws
- ❒ Mount and clamp directly to lip of 2” bung opening 208 lit. (55 gallons) standard steel drums
- ❒ Operates by continuous standard single-phase TEFC (Totally Enclosed Fan Cooled) motor
- ❒ For mixing low viscosity liquids in closed head drums
- ❒ Folding propeller opens to 95 mm (3-3/4”) when mixer is in operate
- ❒ High quality components
- ❒ Light weight, portable
- ❒ Easy to install, user friendly operation
- ❒ Cost effective mixing
- ❒ Few parts - maintenance friendly
- ❒ Long lasting.

● TECHNICAL SPECIFICATIONS

MODEL	LDML
Mixer type	Lip mounted, bung entering drum mixer
Motor type	TEFC (Totally Enclosed Fan Cooled)
Rating	0.50 HP/0.37 kW
Phase	1
Voltage	230 V
Supply frequency	50 Hz
Rated speed	1450 rpm
Shaft dia.	15.88 mm (5/8”)
Shaft length	813 mm (32”)
Mounting bracket	To clamp to lip of standard steel drum
Propeller	Collapsible blade type, open to 95 mm (3-3/4”) dia. when mixer is in operation
Shaft	Stainless steel AISI 316
Blades	Stainless steel AISI 316
Set screws	Stainless steel AISI 316
Bung adaptor	Cast iron
For use on	Closed head 208 lit. (55 gal.) drums

LDM DRUM MIXERS

LDMG - BUNG MOUNTED IBC MIXER

APPLICATIONS

LDMG mixers are design to provide service for a variety of mixing applications.

These drum mixers are suitable for mixing/blending medium to high viscosity fluids & suspending or dissolving medium to high concentrations of solids in liquids.

FEATURES AND BENEFITS

- ❒ No clutches to slip, wear or replace
- ❒ Shaft bearings are permanently lubricated
- ❒ Made out of stainless steel AISI 316 propeller, shaft & set screws
- ❒ Mount directly on 2" bung opening on 208 lit. (55 gallons) drums or bulk containers
- ❒ Operates by continuous standard single-phase TEFC (Totally Enclosed Fan Cooled) motor
- ❒ Fitted with speed reduction gear box which gives more torque
- ❒ For mixing medium to heavy viscosity liquids in drums or containers
- ❒ Folding propeller opens to 229 mm (9") when pump is in operate
- ❒ High quality components
- ❒ Light weight, portable
- ❒ Easy to install, user friendly operation
- ❒ Cost effective mixing
- ❒ Few parts - maintenance friendly
- ❒ Long lasting.

TECHNICAL SPECIFICATIONS

MODEL	LDMG5	LDMG7
Mixer type	IBC mixer, bung mounted (with gear box)	
Motor type	TEFC (Totally Enclosed Fan Cooled)	
Rating	0.50 HP/0.37 kW	0.75 HP/0.55 kW
Phase	1	
Voltage	230 V	
Supply frequency	50 Hz	
Rated speed	1450 rpm	
Propeller speed	378 rpm obtain by speed reducing gear box	
Shaft dia.	19.05 mm (3/4")	
Shaft length	736 - 1041 mm (29" - 41")*	
Mounting bracket	Threads into bung	
Propeller	Open to 229 mm (9") dia. when mixer is in operation	
Shaft	Stainless steel AISI 316	
Blades	Stainless steel AISI 316	
Bung adaptor	Cast iron	
For use on	Closed head 208 lit. (55 gal.) drums or IBC containers	

Note: * Specify shaft length while ordering

LDMH - HEAVY-DUTY TANK MIXER

APPLICATIONS

LDMH mixers are design to provide service for a most difficult mixing applications.

Used for mixing tanks containing up to 11500 lit. (3000 gallons) of liquids with viscosity of 100 cps, up to 3800 lit. (1000 gallons) at 500 cps or up to 1900 lit. (500 gallons) at 1000 cps.

FEATURES AND BENEFITS

- ❒ No clutches to slip, wear or replace
- ❒ Square pitch 1.0 ratio marine propellers are used exclusively. Flow coefficients and power consumption characteristics equal those of the best hydrofoil impeller designs
- ❒ Vibration-absorbing pad standard
- ❒ Grease filled gearbox eliminates oil seal and the possibility of oil contamination of process
- ❒ Shaft bearings are permanently lubricated
- ❒ Mounting clamp has adjustable angle of entry by indexed ball-and-socket design to achieve various process results
- ❒ Made out of stainless steel AISI 316 propeller, shaft and set screws
- ❒ Cast aluminum housing
- ❒ Mount directly on open tank and containers
- ❒ Operates by continuous standard single-phase TEFC (Totally Enclosed Fan Cooled) motor
- ❒ For mixing heavy viscosity liquids in tanks or containers
- ❒ High quality components
- ❒ Easy to install, user friendly operation
- ❒ Cost effective mixing
- ❒ Few parts - maintenance friendly
- ❒ Long lasting.

TECHNICAL SPECIFICATIONS

MODEL	LDMH3	LDMH5	LDMH7
Mixer type	Heavy-duty tank mixer (with gear box)		
Motor type	TEFC (Totally Enclosed Fan Cooled)		
Rating	0.33 HP/0.37 kW	0.50 HP/0.37 kW	0.75 HP/0.55 kW
Phase	1		
Voltage	230 V		
Supply frequency	50 Hz		
Rated speed	1450 rpm		
Propeller speed	294 rpm obtain by speed reducing gear box		
Shaft dia.	19.05 mm (3/4")		
Shaft length	1206 mm (48")	1206 mm (48")	1514 mm (60")
Mounting bracket	Clamp		
Propeller	254 mm (10") dia.	305 mm (12") dia.	330 mm (13") dia.
Shaft	Stainless steel AISI 316		
Blade	Stainless steel AISI 316		
Housing	Aluminum		
For use on	Open top tanks and containers		

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