

**LBM SERIES**

**Self-priming Mud Pumps  
50 Hz**



# LBM SELF-PRIMING MUD PUMPS



## INTRODUCTION

The Lubi **LBM** series are self-priming, horizontal, single-stage, centrifugal, end-suction pumps.

Pumps are available from 0.75 to 2.2 kW in single-phase and from 0.75 to 7.5 kW in three-phase power supply.

Motor and pump are close coupled in a convenient and compact design for quick installation in limited space. They are also available as bare pump unit which are suitable for coupling with motor / engine.

The pump is fitted with a gland packing and single piece pump-motor shaft (in close coupled version). Mechanical shaft seal is available in 0.75 kW models.

The pumps have suction port above pump axis and radial discharge port.

The pumps have non-clogging open type impeller which can handle liquids with solids up to 20 mm grain size.

The pumps are engineered to draw from liquid sources below ground level or from sources which have no positive pressure to naturally prime the pump.

These pumps are inherently designed to allow the pump to re-prime itself typically under lift conditions. Only first time priming is required to remove the air from system.

The pump will re-prime itself even if partially filled with liquid and with completely empty suction pipe.

These pumps are very effective to eliminate the need for foot valves, vacuum and ejector pumps which can become clogged or be impractical to use for prolonged or remote operation.

## APPLICATIONS

- INDUSTRIES:** Petrochemical, fertilizers, pharmaceutical, dyes & intermediate industries, effluent treatment plants, food processing plants, sewage plants, starch, paper, sugar plants, thermic fluid circulations, fatty acid distillation plants.
- PUBLIC UTILITIES:** For pumping muddy water, sewage and polluted liquids, dewatering of swimming pools.
- CIVIL ENGINEERING:** Flood drainage, sewage pumping, fire fighting, dewatering of canals and ponds.
- CONSTRUCTION INDUSTRIES:** Dewatering of excavation, small pits, basements, trenches, construction sites.
- MARINE:** Loading and unloading, dewatering of docks & vessels, bilge pumping.
- WASTE TREATMENT:** Pumping polluted, hot or corrosive waste water containing sand, mud or solids, in suspension, dosing neutralizing liquid, pumping out settled sludge.
- AGRICULTURE:** Surface irrigation, liquid manure oxygenation, distribution of liquid animal feed, washing.
- Any other applications where priming is to be avoided.

## FEATURES AND BENEFITS

- Excellent quick automatic pumping action without foot valve up to 8 metres at mean sea level
- Compact design
- Easy and simple installation
- User-friendly operation
- Low noise level
- Reliable and robust construction
- Reliable water supply
- Back pull-out design which simplifies inspection and maintenance
- Rotating parts are dynamically balanced which ensure vibration free performance and enhanced life
- Better efficiency due to good hydraulic design
- Automatic air release during priming
- Can withstand wide voltage fluctuations
- Class-F motor insulation which can handle higher motor temperature
- Thermally protected motors which prevents motor from burn out
- Non-clogging impeller flow design which can handle suspended solids up to 20 mm
- Construction: Bare pump/Motor coupled/Engine-coupled.

## OPERATING CONDITIONS

Flow range	: Up to 132 m <sup>3</sup> /h
Head range	: Up to 37 metres
Ambient temperature	: Max. +50°C
Liquid temperature range	: 0°C to +90°C
Total suction lift	: Up to 8 metres

## MOTOR

Motor type	: TEFC 2-pole motor
Ratings	: 1 phase - 0.75 to 2.20 kW 3 phase - 0.75 to 7.50 kW
Rated speed	: 2900, 1450 rpm
Enclosure class	: IP 55
Insulation class	: F
Nominal voltage	: 1 phase 230 V (Tolerance +5% / -15%) 3 phase 400 V
Supply frequency	: 50 Hz
Duty / Rating	: S1 / Continuous
Direction of rotation:	Clockwise as seen from the motor rear end (LBM 110, 310, 320, 130, 330, 10, 20, 30, 50, 70, 56, 75, 106) Anti-clockwise as seen from the motor rear end (LBM 355, 55, 105)

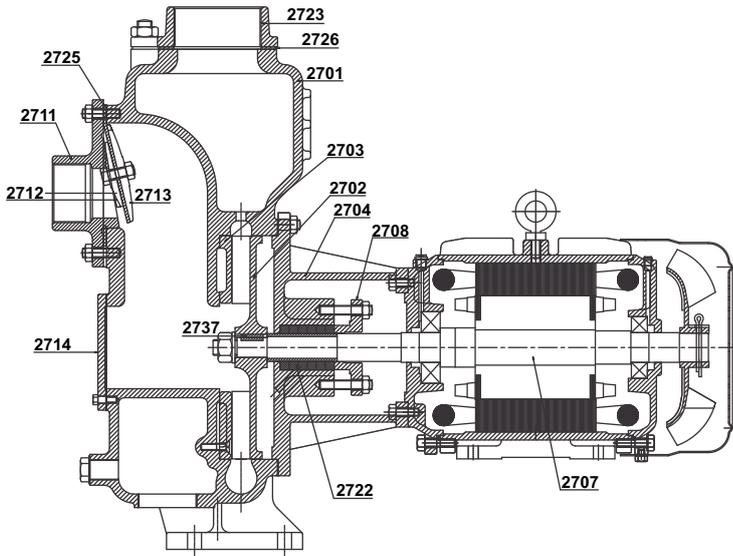
## PUMPED LIQUIDS

These pumps are designed for liquids which are non-aggressive and non-explosive, muddy water, with or without solids up to 20 mm grain size or fibres.

# LBM SELF-PRIMING MUD PUMPS

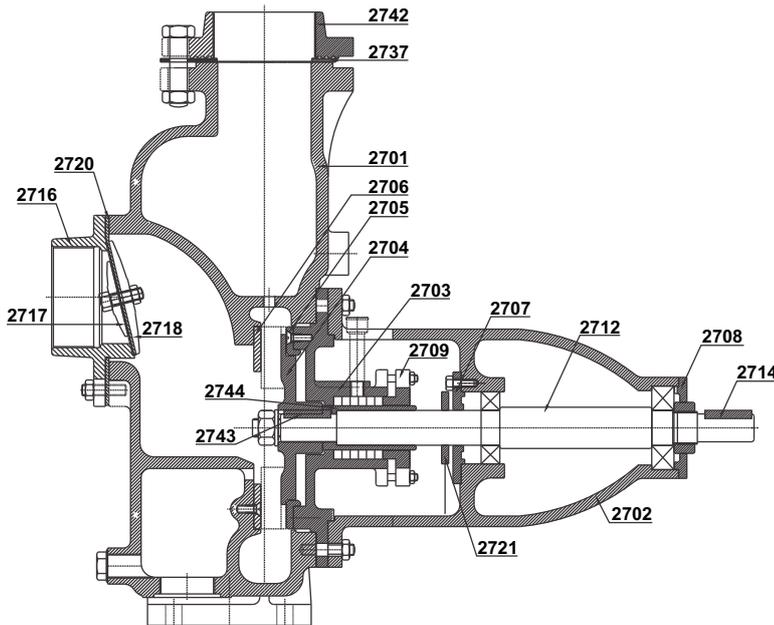


## SECTIONAL DRAWING & MATERIALS



POS.	COMPONENT	MATERIAL
2701	Volute	Cast iron
2702	Impeller	Cast iron
2703	Volute ring	Cast iron
2704	Adaptor	Cast iron
2707	Shaft	Carbon steel
2708	Gland	Cast iron
2711	Suction flange	Cast iron
2712	Back support pad	Cast iron
2713	Front support pad	Cast iron
2714	Cover	Cast iron
2722	Sleeve	S.S AISI 410/Bronze
2723	Flange	Cast iron
2725	Rubber packing	Rubber
2726	Rubber packing	Rubber
2737	Key	Carbon steel

FIG.1 SECTIONAL DRAWING OF CLOSE COUPLED PUMP WITH MOTOR



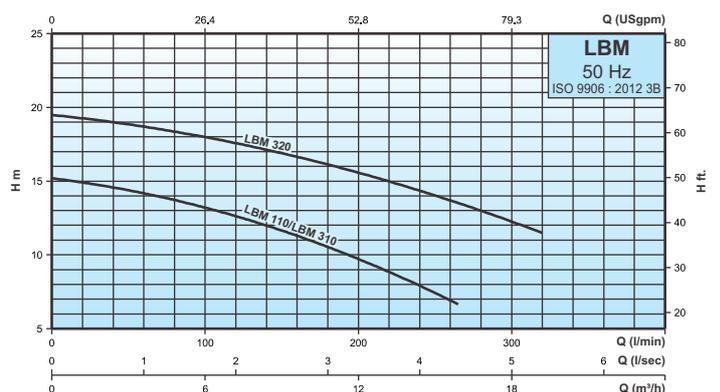
POS.	COMPONENT	MATERIAL
2701	Volute	Cast iron
2702	Adaptor	Cast iron
2703	Back plate	Cast iron
2704	Impeller	Cast iron
2705	Back plate ring	Cast iron
2706	Volute ring	Cast iron
2707	Bearing cover	Cast iron
2708	Bearing cover	Cast iron
2709	Gland	Cast iron
2712	Shaft	Carbon steel
2714	Key	Carbon steel
2716	Suction flange	Cast iron
2717	Back support pad	Cast iron
2718	Front support pad	Cast iron
2720	Rubber packing	Rubber
2721	Water thrower	Rubber
2737	Rubber packing	Rubber
2742	Square flange	Cast iron
2743	Key	Carbon steel
2744	Sleeve	S.S AISI 410/Bronze

FIG.2 SECTIONAL DRAWING OF BARE PUMP

### TECHNICAL DATA

PUMP TYPE		MOTOR POWER		RPM	SUCTION SIZE	DISCHARGE SIZE
1 ~	3 ~	kW	HP			
LBM 110	LBM 310	0.75	1.00	2900	1½"	1½"
-	LBM 320	1.50	2.00	2900	1½"	1½"
LBM 130	LBM 330	2.20	3.00	2900	2"	2"
-	LBM 355	3.70	5.00	1450	3"	3"
LBM 10/LBM 410		0.75	1.00	2900	1½"	1½"
LBM 20		1.50	2.00	2900	1½"	1½"
LBM 30/LBM 430		2.20	3.00	2900	2"	2"
LBM 55/LBM 455		3.70	5.00	1450	3"	3"
LBM 56		3.70	5.00	1450	3"	3"
LBM 50		3.70	5.00	2900	3"	3"
LBM 57/LBM 457		3.70	5.00	1450	4"	4"
LBM 70		5.50	7.50	2900	3"	3"
LBM 75		5.50	7.50	1450	3"	3"
LBM 76/LBM 476		5.50	7.50	1450	4"	4"
LBM 105/LBM 4105		7.50	10.0	1450	4"	4"
LBM 106		7.50	10.0	1450	3"	3"
LBM 125/LBM 4125		9.30	12.5	1450	4"	4"
LBM 205/LBM 4205		15.0	20.0	1450	6"	6"
LBM 255/LBM 4255		18.5	25.0	1450	6"	6"

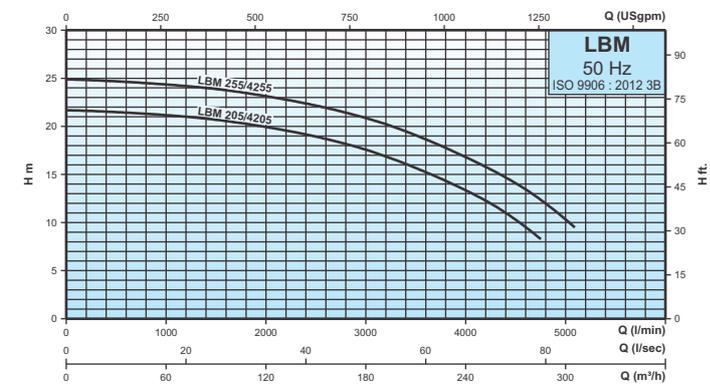
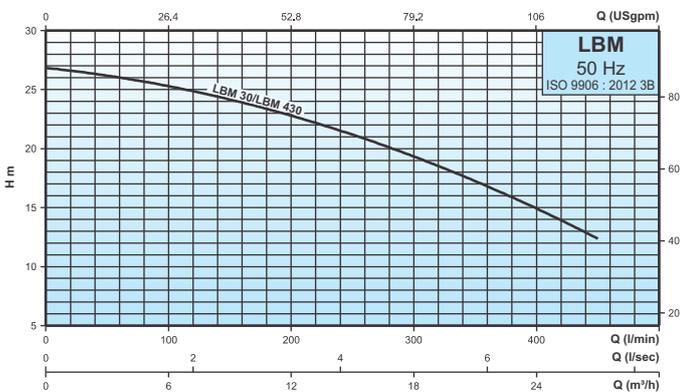
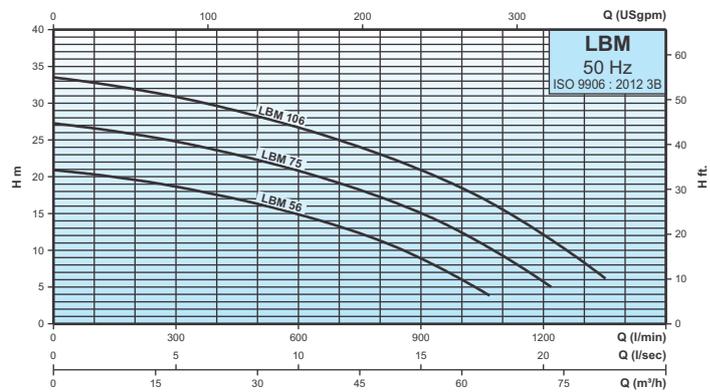
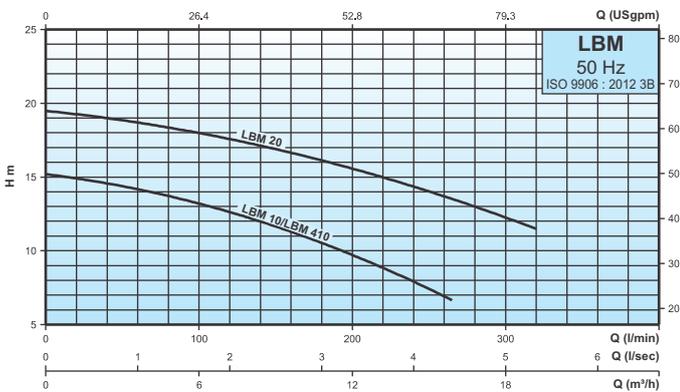
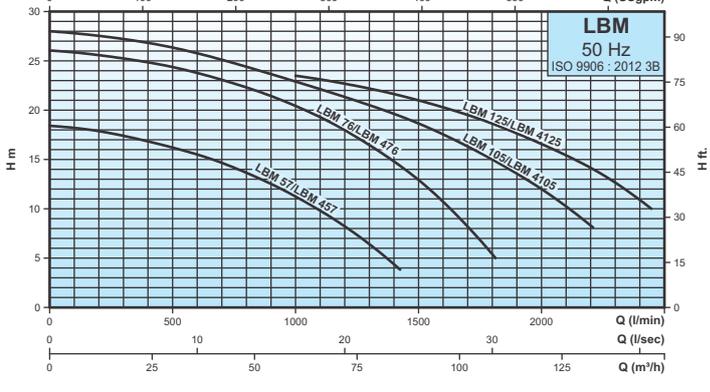
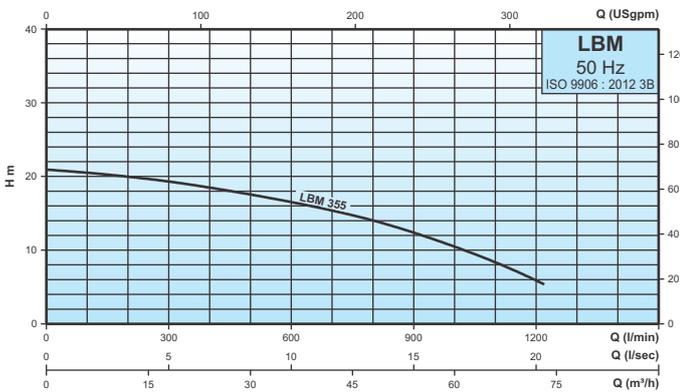
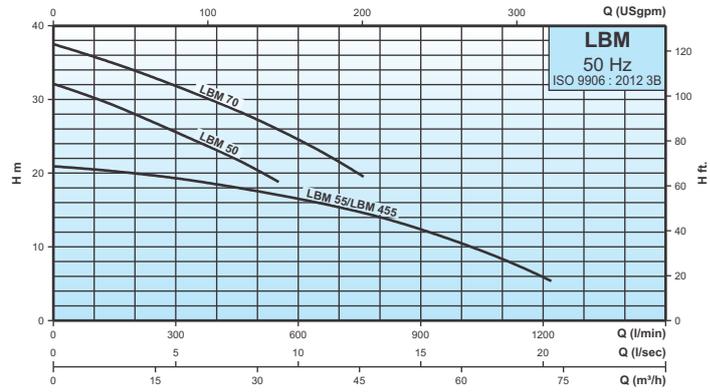
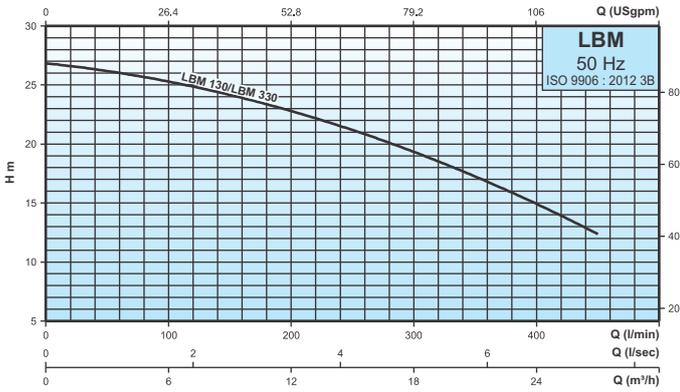
### PERFORMANCE CURVES



# LBM SELF-PRIMING MUD PUMPS



## PERFORMANCE CURVES



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• Printed colours may be slightly different from the actual products.



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