# LN, LP SERIES

Corrosion Resistant Thermoplastic Pumps 50 Hz



**Passion for Pumps** 



**Pumping Solution** 



#### INTRODUCTION

The Lubi **LN** and **LP** series of corrosion resistant thermoplastic pumps are designed for continuous medium pressure circulation or transfer of non-flammable liquids which are compatible with the pump component materials where no suction lift is required.

A water seal flush port is provided for decontamination of chemicals on seal and seat elastomers.

The pump discharge can be rotated 90° as per requirement.

These pump will handle specific gravities to 1.1 (at 100 SSU or less).

These pumps are available from 0.37 to 2.20 kW for single phase as well as three phase power supply.

These pumps are available in Noryl or Polypropylene material of construction. These pumps are available as closed coupled with standard TEFC motor. They are also available as long-coupled with standard TEFC as well as Flame Proof motor.

#### □ Noryl<sup>®</sup>:

This pump series is designed for industrial chemical application.

The pumps are made of Noryl, which is non-metallic and chemical-resistant to most acids, alkalis, and inorganic solvents. This material is stiffer under pressure and temperature than the Polypropylene series.

These pumps are equipped with a unique chemicalresistant, carbon and ceramic mechanical seal with Viton elastomer having the stainless steel components sealed in Noryl allowing for a complete non-metallic Noryl wet end. This unique seal guarantees reliability through simplicity and balance of design. Even the pedestal drive shaft is protected by the same seal design.

**Note:** NORYL is a registered trademark of Saudi Arabia Basic Industries Corporation (SABIC).

**Polypropylene:** This pump series is designed for light industrial or commercial water-based applications.

The pumps are made of non-metallic, glass-filled Polypropylene construction offering chemical resistance to most acids, alkalis, and inorganic solvents as does the Noryl series.

The difference of these pumps is that they are equipped with a carbon ceramic mechanical seal with Buna-N elastomers with the stainless steel components that are not sealed, but still protect the pedestal shaft from chemical exposure.

#### APPLICATIONS

- Chemical process
- Pharmaceutical
- □ Food & Beverage processing
- Steel plants
- □ Automobile
- Marine/Sea water
- □ Water supply
- Booster service
- Cooling water
- Water treatment/Purification
- □ OEM.

#### FEATURES AND BENEFITS

- □ State-of-the art compact design
- Easy and simple install
- User-friendly operation
- Quiet running
- 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
- High performance hydraulics
- □ Construction: Close-coupled/Long-coupled.

#### **OPERATING CONDITIONS**

Flow range	: Up to 22.5 m³/h
Head range	: Up to 22 metres
Ambient temperature	: Max. +50°C
Liquid temperature range	: 0°C to +82°C (Noryl)
	0°C to +60°C (Polypropylene)

#### MOTOR

Motor type	<sup>:</sup> 2-pole motor
Ratings	<sup>:</sup> 1 phase - 0.37 to 2.20 kW
	3 phase - 0.37 to 2.20 kW
Rated speed	<sup>:</sup> 2900 rpm
Enclosure class	<sup>:</sup> IP 55
Insulation class	÷F
Nominal voltage	<sup>:</sup> 1 phase 230 V
(Tolerance +5% / -15%	)3 phase 415 V
Supply frequency	: 50 Hz
Duty / Rating	S1 / Continuous
Direction of rotation	: Clockwise as seen from the motor rear end

#### PUMPED LIQUIDS

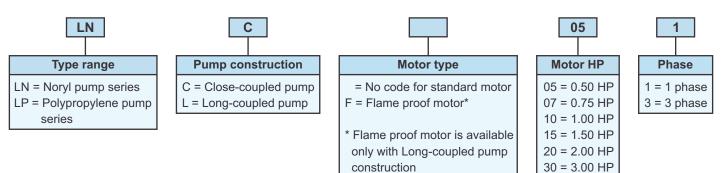
These pumps are designed for continuous medium pressure circulation & transfer of non-flammable, corrosive, aggressive and hazardous liquids which are compatible with pump component materials where no suction lift is required.



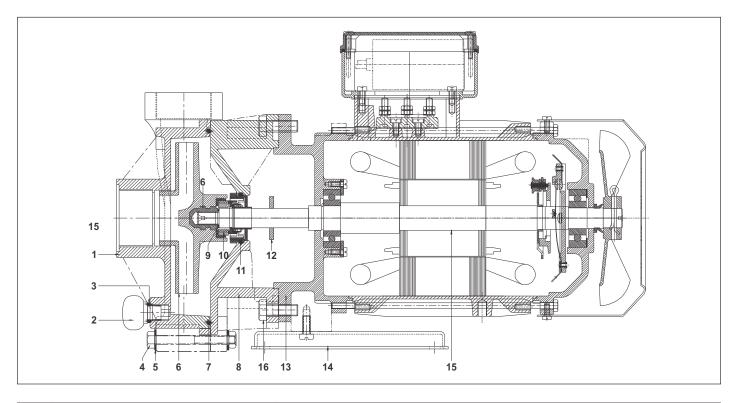
# CORROSION RESISTANT THERMOPLASTIC PUMPS



#### TYPE KEYS



#### SECTIONAL DRAWING & MATERIALS



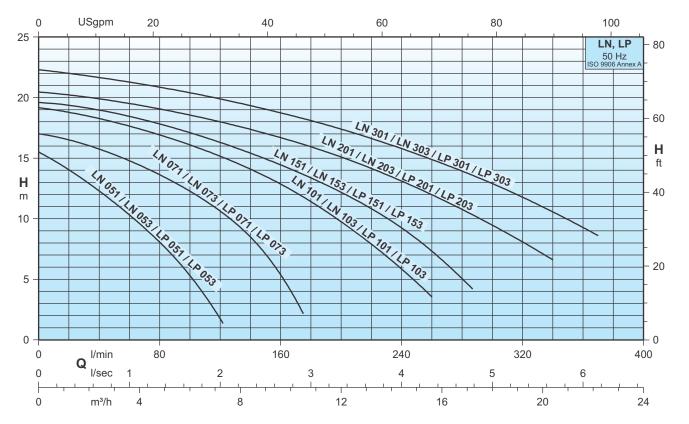
POS.	COMPONENT	MATERIAL								
FU3.	COMPONENT	LN	LP							
1	Volute	Noryl (30% Glass Filled)	Polypropylene							
2	1/4" NPT Water plug	Noryl (30% Glass Filled)	Polypropylene							
3	"O" ring for water plug	Viton	NBR							
4	Hex bolt with nut	Stainless steel AISI 304	Stainless steel AISI 304							
5	Flat washer 1/4"	Stainless steel AISI 304	Stainless steel AISI 304							
6	Impeller	Noryl (30% Glass Filled)	Polypropylene							
7	"O" ring for volute fitting	Viton	NBR							
8	Adaptor	Noryl (30% Glass Filled)	Polypropylene							
9	Shim washer	Stainless steel	Stainless steel							
10	Mechanical shaft seal	Carbon/Ceramic/Viton	Carbon/Ceramic/NBR							
11	"O" ring for mechanical shaft seal	Viton	NBR							
12	Water thrower	NBR	NBR							
13	Bracket	Cast iron ASTM 30B	Cast iron ASTM 30B							
14	Base plate	Steel	Steel							
15	Pump shaft	Stainless steel AISI 304 (Non-Wetted)	Stainless steel AISI 304 (Non-Wetted)							
16	Hex bolt	Stainless steel AISI 304	Stainless steel AISI 304							

# LN, LP

# CORROSION RESISTANT THERMOPLASTIC PUMPS



#### PERFORMANCE CURVES (BASED ON WATER, SG = 1.00)

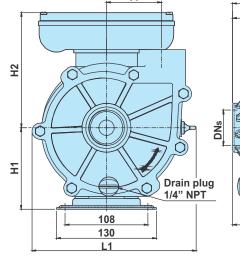


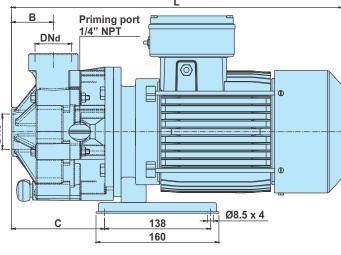
PUMP TYPE		MOTOR	POWER	<b>Q</b> m³/h	3	6	9	12	15	18	21
1 ~	3 ~	kW	HP	<b>Q</b> I/min	50	100	150	200	250	300	350
LN 051/LP 051	LN 053/LP 053	0.37	0.50		11	5	-	-	-	-	-
LN 071/LP 071	LN 073/LP 073	0.55	0.75		15	12	7	-	-	-	-
LN 101/LP 101	LN 103/LP 103	0.75	1.00	н	18	16	13.5	10	4.5	-	-
LN 151/LP 151	LN 153/LP 153	1.10	1.50	m	18.5	17	14.5	12	8.5	-	-
LN 201/LP 201	LN 203/LP 203	1.50	2.00		19.5	18.5	17	15	12.5	9.5	-
LN 301/LP 301	LN 303/LP 303	2.20	3.00		21.5	20.5	19	17	15.5	14	10

## **CORROSION RESISTANT** THERMOPLASTIC PUMPS



**DIMENSIONS & WEIGHT - CLOSE COUPLED PUMP** 

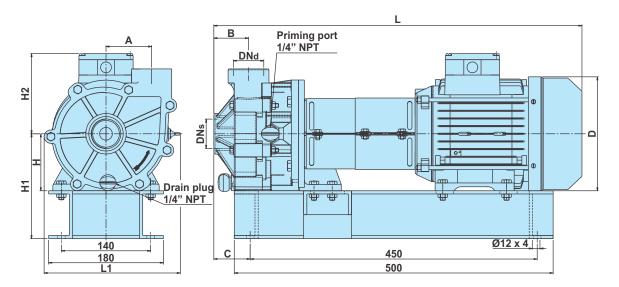




PUMP TYPE		FRAME	DNs	DNd		DI		GROSS WEIGHT	GROSS VOLUME				
1 ~	3 ~	SIZE	[NPT]	[NPT]	L	L1	H1	H2	Α	В	С	[kg]	[m <sup>3</sup> ]
LNC 051/LPC 051	LNC 053/LPC 053	80	11⁄2"	11⁄2"	431	214	106	150	71.5	54.4	120	17.5	0.0550
LNC 071/LPC 071	LNC 073/LPC 073	80	11⁄2"	11⁄2"	431	214	106	150	71.5	54.4	120	17.5	0.0550
LNC 101/LPC 101	LNC 103/LPC 103	80	11⁄2"	11⁄2"	431	214	106	150	71.5	54.4	120	17.5	0.0550
LNC 151/LPC 151	LNC 153/LPC 153	80	11⁄2"	11⁄2"	431	214	106	150	71.5	54.4	120	17.5	0.0550
LNC 201/LPC 201	LNC 203/LPC 203	90	11⁄2"	11⁄2"	478	214	106	145	71.5	54.4	118	18.5	0.0550
LNC 301/LPC 301	LNC 303/LPC 303	90	11⁄2"	11⁄2"	478	214	106	145	71.5	54.4	118	18.5	0.0550
Note: All dimension	s in mm unless othe	nvise note	d										

te: All dimensions in mm unless otherwise noted.

**DIMENSIONS & WEIGHT - LONG COUPLED PUMP WITH STANDARD MOTOR** 

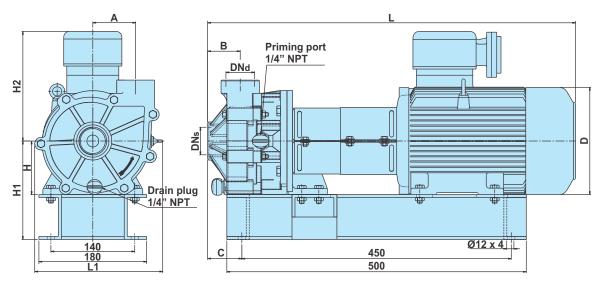


PUMP TYPE		DNs	DNd				DI	MENS	IONS	[mm]			GROSS WEIGHT	GROSS VOLUME
3 ~		[NPT]	[NPT]	L	L1	Н	H1	H2	Α	В	С	D	[kg]	[m <sup>3</sup> ]
LNL 053/LPL 053	80	11⁄2"	11⁄2"	530	214	80	165	116	71.5	54.4	57	159	25.0	0.1110
LNL 073/LPL 073	80	11⁄2"	11⁄2"	530	214	80	165	116	71.5	54.4	57	159	28.0	0.1110
LNL 103/LPL 103	80	11⁄2"	11⁄2"	530	214	80	165	116	71.5	54.4	57	159	30.0	0.1110
LNL 153/LPL 153	80	11⁄2"	11⁄2"	530	214	80	165	116	71.5	54.4	57	159	36.0	0.1110
LNL 203/LPL 203	90S	11⁄2"	11⁄2"	561	214	90	165	123	71.5	54.4	57	178	38.0	0.1110
LNL 303/LPL 303	90L	11⁄2"	11⁄2"	584	214	90	165	147	71.5	54.4	57	178	42.0	0.1110
Note: All dimensions in mm	unless ot	herwise	noted.											

# CORROSION RESISTANT THERMOPLASTIC PUMPS



#### DIMENSIONS & WEIGHT - LONG COUPLED PUMP WITH FLAME PROOF MOTOR



FRAME	RAME DNs	DNd				DI	MENS	IONS	[mm]			GROSS	GROSS VOLUME	
SIZE	SIZE	E [NPT]	[NPT]	L	L1	Н	H1	H2	Α	В	С	D	[kg]	[m <sup>3</sup> ]
80	11⁄2"	11⁄2"	578	214	80	165	216	71.5	54.4	57	164	47.0	0.1220	
80	11⁄2"	11⁄2"	578	214	80	165	216	71.5	54.4	57	164	47.0	0.1220	
80	11⁄2"	11⁄2"	578	214	80	165	216	71.5	54.4	57	164	47.0	0.1220	
80	11⁄2"	11⁄2"	578	214	80	165	216	71.5	54.4	57	164	48.0	0.1220	
90	11⁄2"	11⁄2"	630	214	90	165	246	71.5	54.4	57	174	64.0	0.1220	
90	11⁄2"	11⁄2"	630	214	90	165	246	71.5	54.4	57	174	66.0	0.1220	
	SIZE   80   80   80   90	SIZE [NPT]   80 1½"   80 1½"   80 1½"   80 1½"   80 1½"   90 1½"	SIZE [NPT] [NPT]   80 1½" 1½"   80 1½" 1½"   80 1½" 1½"   80 1½" 1½"   80 1½" 1½"   90 1½" 1½"	SIZE [NPT] [NPT] L   80 1½" 1½" 578   80 1½" 1½" 578   80 1½" 1½" 578   80 1½" 1½" 578   80 1½" 1½" 578   80 1½" 1½" 578   90 1½" 1½" 630	SIZE [NPT] [NPT] L L1   80 1½" 1½" 578 214   80 1½" 1½" 578 214   80 1½" 1½" 578 214   80 1½" 1½" 578 214   80 1½" 1½" 578 214   90 1½" 1½" 630 214	SIZE [NPT] [NPT] L L1 H   80 1½" 1½" 578 214 80   80 1½" 1½" 578 214 80   80 1½" 1½" 578 214 80   80 1½" 1½" 578 214 80   80 1½" 1½" 578 214 80   80 1½" 1½" 578 214 80   90 1½" 1½" 578 214 90	SIZE [NPT] [NPT] L L1 H H1   80 1½" 1½" 578 214 80 165   80 1½" 1½" 578 214 80 165   80 1½" 1½" 578 214 80 165   80 1½" 1½" 578 214 80 165   80 1½" 1½" 578 214 80 165   90 1½" 1½" 630 214 90 165	SIZE [NPT] [NPT] L L1 H H1 H2   80 1½" 1½" 578 214 80 165 216   80 1½" 1½" 578 214 80 165 216   80 1½" 1½" 578 214 80 165 216   80 1½" 1½" 578 214 80 165 216   80 1½" 1½" 578 214 80 165 216   80 1½" 1½" 578 214 80 165 216   90 1½" 1½" 578 214 80 165 216	SIZE [NPT] [NPT] L L1 H H1 H2 A   80 1½" 1½" 578 214 80 165 216 71.5   80 1½" 1½" 578 214 80 165 216 71.5   80 1½" 1½" 578 214 80 165 216 71.5   80 1½" 1½" 578 214 80 165 216 71.5   80 1½" 1½" 578 214 80 165 216 71.5   80 1½" 1½" 578 214 80 165 216 71.5   90 1½" 1½" 578 214 80 165 216 71.5   90 1½" 1½" 630 214 90 165 246 71.5	SIZE [NPT] [NPT] L L1 H H1 H2 A B   80 1½" 1½" 578 214 80 165 216 71.5 54.4   80 1½" 1½" 578 214 80 165 216 71.5 54.4   80 1½" 1½" 578 214 80 165 216 71.5 54.4   80 1½" 1½" 578 214 80 165 216 71.5 54.4   80 1½" 1½" 578 214 80 165 216 71.5 54.4   80 1½" 1½" 578 214 80 165 216 71.5 54.4   90 1½" 1½" 578 214 80 165 216 71.5 54.4	SIZE [NPT] [NPT] L L1 H H1 H2 A B C   80 1½" 1½" 578 214 80 165 216 71.5 54.4 57   80 1½" 1½" 578 214 80 165 216 71.5 54.4 57   80 1½" 1½" 578 214 80 165 216 71.5 54.4 57   80 1½" 1½" 578 214 80 165 216 71.5 54.4 57   80 1½" 1½" 578 214 80 165 216 71.5 54.4 57   80 1½" 1½" 578 214 80 165 216 71.5 54.4 57   90 1½" 1½" 578 214 80 165 216 71.5 54.4 57   90 1½" <	SIZE [NPT] [NPT] L L1 H H1 H2 A B C D   80 1½" 1½" 578 214 80 165 216 71.5 54.4 57 164   80 1½" 1½" 578 214 80 165 216 71.5 54.4 57 164   80 1½" 1½" 578 214 80 165 216 71.5 54.4 57 164   80 1½" 1½" 578 214 80 165 216 71.5 54.4 57 164   80 1½" 1½" 578 214 80 165 216 71.5 54.4 57 164   80 1½" 1½" 578 214 80 165 216 71.5 54.4 57 164   90 1½" 1½" 630 214 90 165 <	FRAME SIZE DNS [NPT] DNG [NPT] L L1 H H1 H2 A B C D WEIGHT [kg]   80 1½" 1½" 578 214 80 165 216 71.5 54.4 57 164 47.0   80 1½" 1½" 578 214 80 165 216 71.5 54.4 57 164 47.0   80 1½" 1½" 578 214 80 165 216 71.5 54.4 57 164 47.0   80 1½" 1½" 578 214 80 165 216 71.5 54.4 57 164 47.0   80 1½" 1½" 578 214 80 165 216 71.5 54.4 57 164 47.0   80 1½" 1½" 578 214 80 165 216 71.5 54.4 57 164 48.0	

Note: All dimensions in mm unless otherwise noted.

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