

LBO SERIES

**SEMI-OPEN IMPELLER
BARE SHAFT END-SUCTION PUMPS
50 Hz**



Pumping Solution

INTRODUCTION

The Lubi **LBO** series are single-stage bare shaft end-suction pumps designed to meet the requirements of ISO 5199. These pumps are ideally suitable in Chemical Industry for handling of low viscosity clean and slightly contaminated liquids. They are available with variety of shaft sealing arrangements and bearing configurations. These pumps can be supplied with a wide variety of material of construction like Stainless Steels, Bronze, Ductile Iron as well as Cast Iron.

KEY FEATURES

- Suitable for a wide range of duties
- Available in several material of construction
- Only 4 bearing brackets for the whole range
- Mechanical shaft seals according to EN12756 (DIN24960)
- Also available with single or double cartridge shaft seals
- Back pull out design

FEATURES AND BENEFITS

SUCTION CAPABILITIES

- Smooth suction entry in pump casing
- Smooth surface finish
- Optimum NPSH
- Anti rotation vane
- Minimal flow distortion giving better suction capabilities

MATERIAL OPTIONS

- Available in Stainless Steel, Bronze, Ductile Iron and Cast Iron and other materials, such as duplex, upon request
- Suitable for a wide range of applications

IMPELLER BACK VANES

- Flat back cover for hydraulic balancing
- Back vanes for hydraulic balancing
- Extended bearing life
- Keeps solids away from shaft sealing area
- Circulation flow over mechanical seal

IMPELLER

- Semi-open impeller with wear plate

PUMP CASING

- Flanges according to ISO 7005 PN 16 or ISO 7005 PN 20 (ANSI B16.5 150 flanges available on request)
- Max. working pressure 16 bar
- Large drain opening
- Complete and fast draining of the casing

FOOT

- Machined foot
- Exact positioning on baseplate and in pipework

SHAFT SEALING

- 7 possible mechanical EN-seal, options as per EN 12756
- Single and double Cartridge seals can also be provided
- Seal combinations are available for seal materials.
- Sealing cover provided with quench and flush connections
- Suitable for many liquid applications
- Also suitable for high temperatures
- Tapered bore seal chamber with or without flush plan

SHAFT

- Stainless steel or steel alloy rigid, reliable shaft
- Shaft deflection
- Impeller key is extended into the shaft sleeve for positive rotation of shaft sleeve
- Shaft is not wetted by the liquid being pumped

FORCES AND MOMENTS

- Forces and moments as per ISO 5199

OIL LUBRICATION

- Lubrication by oil bath
- Filling Plug with breather
- Constant level oiler
- Oil sight glass
- Large drain plug

PUMP PERFORMANCE

- High efficiency hydraulic design with minimal losses using CFD techniques
- Smooth internal surfaces
- Semi open impeller with wear plate

BEARINGS

- Oil bath lubricated or grease lubricated arrangement
- Robust bearing bracket for rigidity
- Bearing housing is precision machined for proper fitment and alignment of bearings.
- Impeller clearance between wear plate can be adjusted when required to ensure consistent performance.

EASY AND LOW COST MAINTENANCE

- Back Pull Out Design
- Reduced maintenance down times, quick and easy impeller replacement
- Gland Packing option comes with shaft sleeve
- No shaft damage from packing
- Mechanical seals according to EN 12756 (DIN 24960)
- Replaceable wear ring
- Reduced maintenance cost

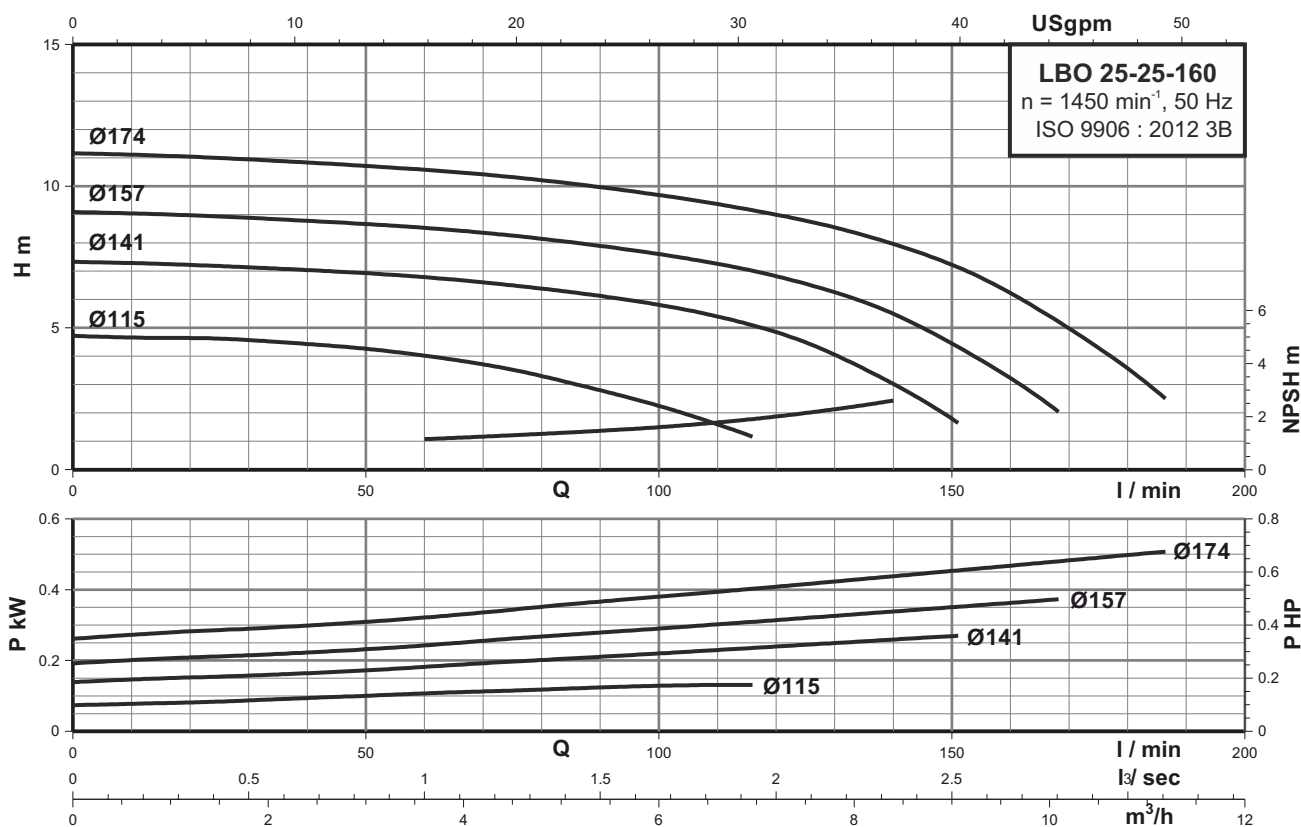
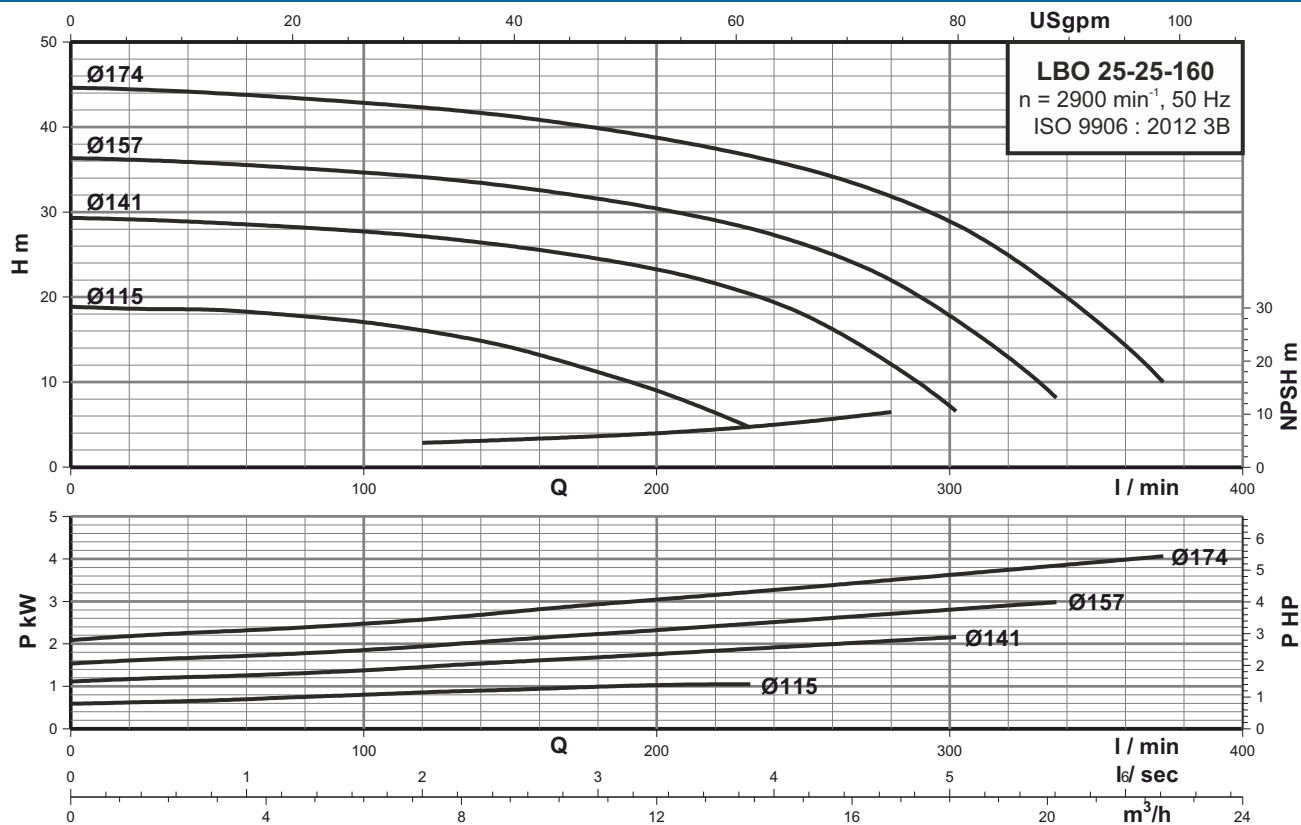
CASING BACK COVER

- Precision machined for perfect alignment with volute, impeller and shaft. Back cover is designed for stuffing box as well as mechanical seal configurations.
- Tapered bore with ribs ensures enhanced cooling and protection of seal against solids.

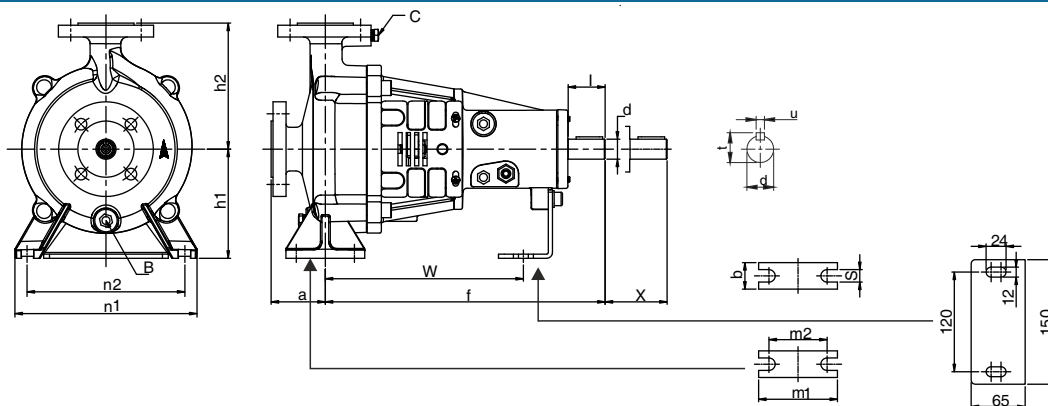
TECHNICAL DATA

Max. capacity	: 22 m ³ /h
Max. head	: 45 m
Max. working pressure	: 1600 kPa (16 bar)
Max. temperature	: -50°C up to +200°C
Max. speed	: 2900, 1450 rpm

PERFORMANCE CURVES



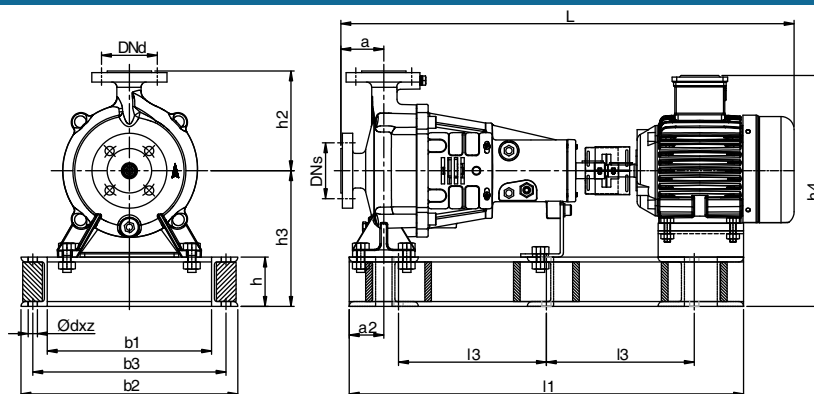
BARE PUMP DIMENSIONS



TYPE	DNs	DNd	a	b	d.k6	f	h1	h2	l	m1	m2	n1	n2	s	t	u	w	x	B	C	Net weight kg.	Gross weight kg.	Volume m ³
LBO 25-160	25	25	65	32	24	338	132	151	44.6	95	70	220	190	15	27	8	240	90	Ø1/4"	Ø1/4"	25	30	0.104

All dimensions in mm unless otherwise noted.

DIMENSIONS



	2 Pole				4 Pole		
kw	1.1	1.5	2.2	4.1	0.18	0.37	0.5
HP	1.5	2.0	3.0	5.5	0.25	0.50	0.75
RPM	2900	2900	2900	2900	1450	1450	1450
Frame	80L	90S/L	90S/L	100L	63L	71L	80L
DNs	25	25	25	25	25	25	25
DNd	25	25	25	25	25	25	25
a	65	65	65	65	65	65	65
h2	151	151	151	151	151	151	151
L	691	740	740	777	624	653	691
l1	600	646	646	676	560	580	600
l3	225	248	248	263	205	215	225
b1	250	250	250	250	250	250	250
b2	330	330	330	330	330	330	330
b3	294	294	294	294	294	294	294
Ød x z	14 X 6	14 X 6	14 X 6	14 X 6	14 X 6	14 X 6	14 X 6
a2	53	53	53	53	53	53	53
h	75	75	75	75	75	75	75
h3	207	207	207	207	207	207	207
h4	333	356	356	363	313	282	333
Net Weight (Kg)	73	78	80	90	62	63	73
Gross Wt. (kg)	88	94	96	108	74	76	88
Volume (m3)	0.235	0.249	0.249	0.259	0.217	0.225	0.235

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Product Improvement is a continuous process at 'LUBI'. The data given in this publication is therefore subject to revision.

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ISO 9001



ISO 14001