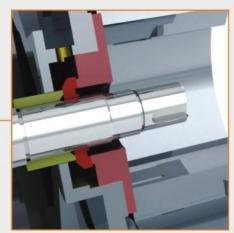
## LVR SERIES ROOTS VACUUM PUMP



1.Aluminum Alloy The pump shell and the rotors are all made of aluminum alloy which has the character of light weight, heat resistance, corrosion resistance and good looking.



2. Mechanical Seal Using mechanical seal to prolong the service life. And the build-in "oil cup" and oil slinger is used to lubricating the mechanical seal.



The good profile is designed to ensure the higher pumping ability even at low pressure.



4.Intermediate Seal Using multiple seals to ensure no oil return into the pumping chamber.

#### Served Customers

We adhere to the spirit of "people-oriented, create value", respect the customers sincerely, grasp customers' needs fully and accurately, practice the service philosophy of " customer first, service foremost " seriously, develop concordantly and share prosperity.

We believe that quality creates the future, and the excellence drives the development!





















































































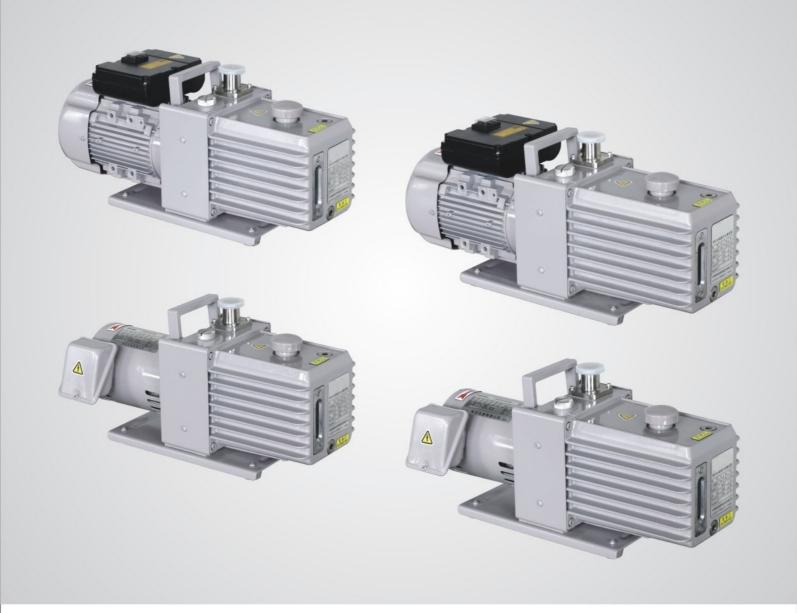












# LVD SERIES DIRECT DRIVE VACUUM PUMP

### APPLICATIONS FIELD

Laboratory, instruments analysis, laser application, vacuum coating, sputtering, semiconductor manufacturing equipment, vacuum degassing, electron microscope auxiliary pump, lighting, refrigeration equipment production line and vacuum drying etc.

### **CHARACTERISTIC**

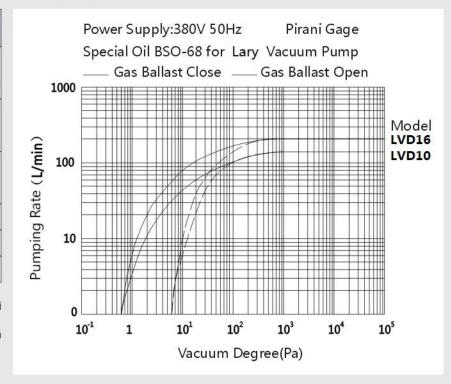
- 1. Optimized design and precision machining brings the low vibration, low noise and long life.
- 2. Built-in oil check valve avoid the phenomenon of oil return.
- 3. Forced feed lubrication of the built-in oil pump ensure the lubricating and internal seal in the pumpdown processing from atmosphere to high vacuum process.
- 4. Inspect and control the oil level easily through the big oil level mirror.

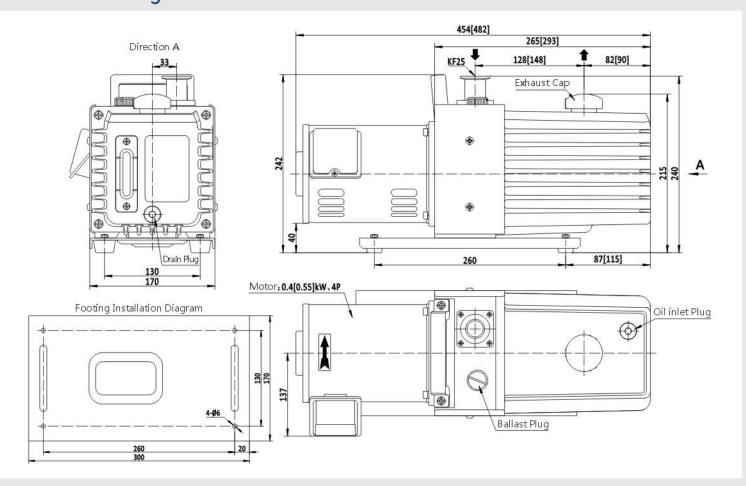
Item	Model	LVD10	LVD16	Unit	
Pumping	50Hz	9.9(165)	14.4(240)	m³/h	
Rate	60Hz	12(200)	17.4(290)	(L/min)	
Margin	Gas Ballast Close	5×:	D-		
Pressure	Gas Ballast Open	5	Pa		
Motor Power	380V (Three Phase) 220V (Single Phase)	0.4 (4Poles)	0.55 (4Poles)	kW	
Oil Requi	red	1.1	1.1 1.2		
Air Inlet/0	Dutlet	KF	DN		
Weight		25 27		Kg	

#### Note:

- 1. The value of Margin Pressure here is measured with Pirani gage, if use the Mcleod gage the value should be 5x10° Pa.
- 2. There are many different kinds of vacuum pump oil which has vapor pressure, viscosity and oil difference. Therefore, in order to guarantee the pump performance and service life, please use lary special pump oil

# **Pumping Rate Curve**



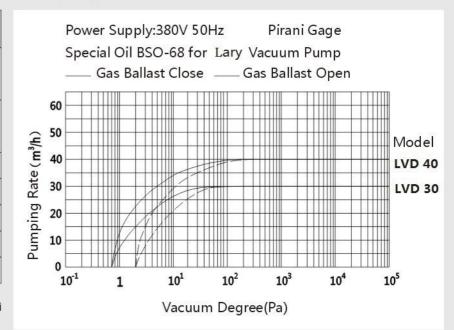


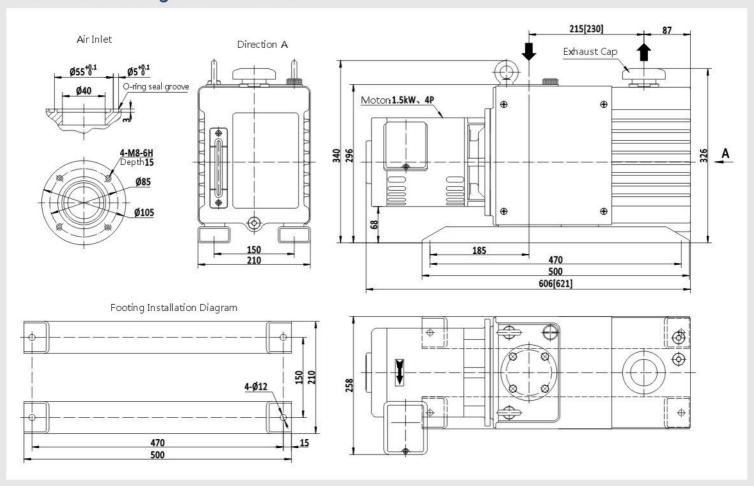
Item	Model	LVD30 LVD40		Unit	
Pumping	50Hz	30(500)	40(667)	m³/h	
Rate	60Hz	36(600)	48(800)	(L/min)	
Margin Pressure	Gas Ballast Close	5×:	Pa		
	Gas Ballast Open	2			
Motor Power	(3phase, 4P)	1	kW		
Motor Spee	d 50Hz	14	r/min		
Oil Req	uired	1.2	L		
Air Inlet,	/Outlet	KF	DN		
Weig	ght	63 65		kg	

#### Note:

- 1. The value of Margin Pressure here is measured with Pirani gage, if use the Mcleod gage the value should be  $5x10^{\circ}$  Pa.
- 2. There are many different kinds of vacuum pump oil which has vapor pressure, viscosity and oil difference. Therefore, in order to guarantee the pump performance and service life, please use Lary special pump oil.

# **Pumping Rate Curve**



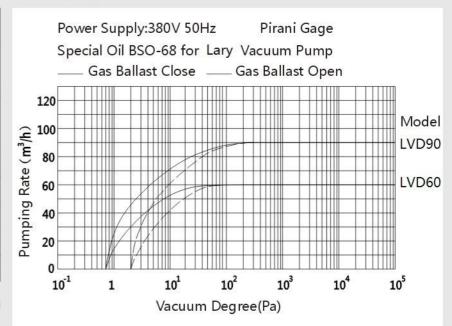


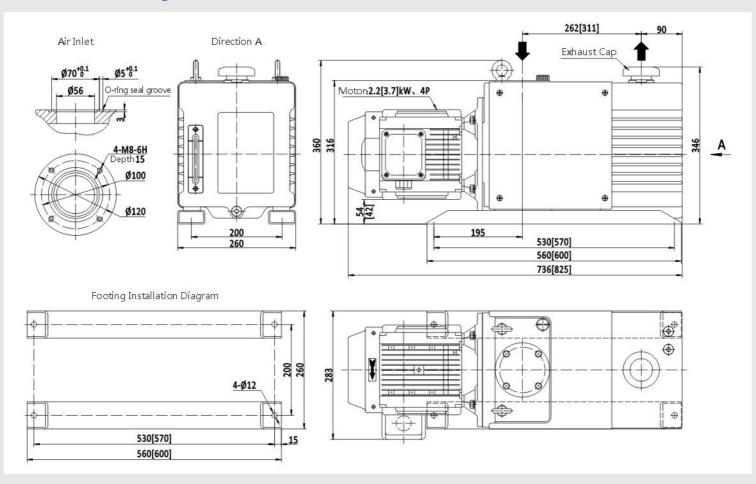
Item	Model	LVD60	LVD90	Unit	
Pumping	50Hz	60(1000)	90(1500)	m³/h	
Rate	60Hz	72(1200)	108(1800)	(L/min)	
Margin	Gas Ballast Close	5×2	Pa		
Pressure	Gas Ballast Open	2			
Motor Power(	3phase, 4P)	2.2	3.7	kW	
Motor Spee	d 50Hz	14	r/min		
Oil Req	uired	2.5	L		
Air Inlet/	Outlet	KF	DN		
Weig	ht	87 101		kg	

#### Note:

- 1. The value of Margin Pressure here is measured with Pirani gage, if use the Mcleod gage the value should be  $5x10^{\circ}$  Pa.
- 2. There are many different kinds of vacuum pump oil which has vapor pressure, viscosity and oil difference. Therefore, in order to guarantee the pump performance and service life, please use Lary special pump oil.

# **Pumping Rate Curve**







# LVRSERIES ROOTS VACUUM PUMP

#### INTRODUCTION

Roots vacuum pump is mainly composed of a pair of "8"-shaped rotors which synchronous rotate with high-speed and two semi-circular chambers. It can improve the pumping rate as well as vacuum degree greatly in effective working limit when combines with screw vacuum pumps, rotary vane pumps, rotary plunger pump etc.

#### APPLICATIONS FIELD

Lighting, solar energy, electronics, semiconductors, vacuum drying, leak detection equipment, vacuum casting, vacuum melting, vacuum degassing, vacuum coating industry and vacuum distillation of the chemical pharmaceutical industry etc.

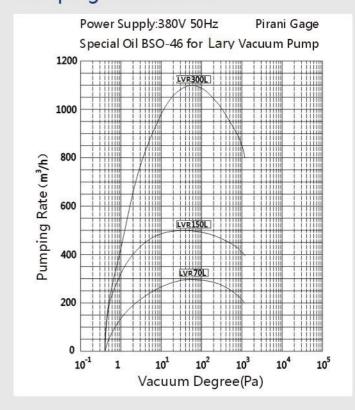
#### CHARACTERISTIC

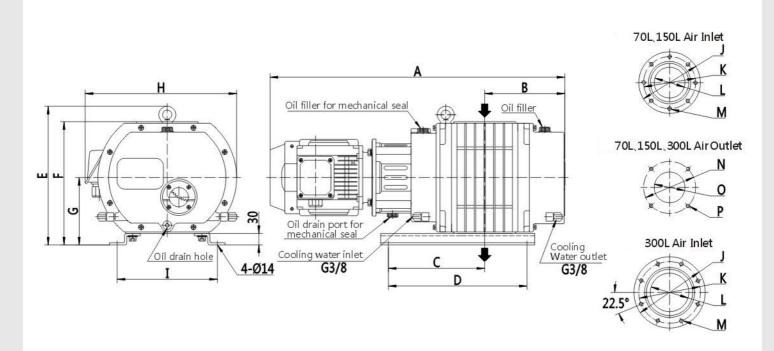
- 1. No lubricating oil in the pump chamber to get high purity vacuum.
- 2. Rotors processing with imported advanced equipment have the characteristic of good geometric symmetry, low noise and long service life.
- 3. The whole pump is made of aluminum alloy for corrosion resistance and lose heat quickly, so as to prolong the life of the pump.
- 4. Quick start, to reach a vacuum in a short time.
- 5. Compact-sized, light weight and small footprint.

Item Model	LVR70	LVR150	LVR300	Unit
Pumping Rate	70	150	300	L/S
Margin Pressure	4X10 <sup>-1</sup>	4×10 <sup>-1</sup>	5×10 <sup>-1</sup>	Pa
Max Allowable Pressure Differential	4×10³	7.3×10³	7.3×10³	Pa
Max Suction Pressure	1.2X10 <sup>3</sup>	1.3×10³	1.3×10³	Pa
Inlet Diameter	80	80	100	mm
Outlet Diameter	80	80	80	mm
Motor Power	0.75	2.2	3.7	kW
Rotate Speed	2950	2950	2950	r/min
Weight	51	79.5	115	kg

Note: The value of Margin Pressure here is measured with pirani gage, if use the Mcleod gage the value should be  $4\times10^{-2}$  Pa.

# **Pumping Rate Curve**





Model	А	В	С	D	Е	F	G	Н	I	J	K	L	М	N	0	Р
LVR70	695	193	185	300	300	260	145	350	240	ф160	ф135	Ф <b>80</b>	M10	ф135	ф80	M10
LVR150	765	208	250	360	360	320	175	393	260	Ф160	ф135	Ф80	M10	ф135	Ф80	M10
LVR300	962	266	360	500	362	330	185	412	340	ф185	Ф160	ф100	M10	ф135	ф80	M10