

# PRODUCT SELECTION REPORT

Model:LVR20-8  
Name:Stainless Steel Vertical  
Multistage Pump



**LEO GROUP PUMP CO.,LTD.**

2025.6.25

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Personal Name: Koslan

Company Address:

Company Name:

Website: www.leopump.com

Company Name:

Product Model: LVR20-8

LEO GROUP PUMP CO., LTD.

## Product Recommendations

Flow(m<sup>3</sup>/h): 20 Head(m): 96 Power(kW): 11

Based on provided information and product parameters, LEO PUMP recommends model:  
**LVR20-8**

## Introduction

### Application

Suitable for transferring liquids of low viscosity, non-inflammable and non-explosive, not containing solid particles or fibers;

Water supply & drainage for high-rise buildings, filtration and transfer at waterworks, pressure boosting in main pipe;

Washing and cleaning systems, boiler feeding, cooling water circulation, water treatment systems, auxiliary system, support equipment; Ultra-filtration systems, reverse-osmosis systems, distillation systems, separators, swimming pools;

Agricultural irrigation: sprinkler irrigation, drip-feed irrigation;

Food & beverage industry;

Fire-fighting system.

### Operating Conditions

Low viscosity, non-inflammable and non-explosive liquids not containing solid particles or fibers. The liquids must not chemically attack the pump materials. When pumping liquids with a density or viscosity is higher than that of water, a motor with a higher output power rating shall be used.

Liquid temperature: - 20°C ~ + 120°C;

Flow ranges: 0.7- 240 m<sup>3</sup>/h;

Liquid pH value: 4 - 10;

Max. ambient temperature: +40°C;

Max. operating pressure: 33 bar;

Altitude: up to 1000m.

### Motor

IE 2 motor (IE 3 motor optional);

Totally enclosed & fan-cooled;

Protection class: IP55;

Standard voltage: 50Hz 1x220V/3x380V

Minimum Inlet Pressure-NPSH

Calculation of the inlet pressure "H" is recommended in these situations;

The liquid temperature is high;  
 The flow is significantly higher than the rated flow;  
 Water is drawn from depths;  
 Water is drawn through long pipes;  
 Inlet conditions are poor.  
 Minimum Inlet Pressure

The following table shows the maximum permissible inlet pressure. However, the current inlet pressure + the pressure against a closed valve must always be lower than the Max. permissible operating pressure. If the maximum permissible operating pressure is exceeded, the bearing in the motor may be damaged and the life of the shaft seal reduced..

## Product Parameters

### Nameplate

|                                    |      |                             |      |
|------------------------------------|------|-----------------------------|------|
| Pump flow rate(m <sup>3</sup> /h): | 20   | Total manometric head H(m): | 96   |
| Pump efficiency(%):                | 72.9 | Speed(rpm):                 | 2900 |

### Technical

|                                      |                 |                        |       |
|--------------------------------------|-----------------|------------------------|-------|
| Motor power(kW):                     | 11              | Pump power input(kW):  | 7.18  |
| Curve tolerance:                     | ISO 9906 AnnexA | Maximum lift(m):       | 115.7 |
| Maximum use flow(m <sup>3</sup> /h): | 28.5            | Impeller diameter(mm): | 104.5 |

### Material

|                  |         |                       |                              |
|------------------|---------|-----------------------|------------------------------|
| Impeller:        | AISI304 | Diffuser:             | AISI304                      |
| Pump shaft:      | AISI316 | Motor base:           | HT200                        |
| Pump cover:      | AISI304 | Coupling:             | Powder metallurgy            |
| Pump barrel:     | AISI304 | Flange:               | ZG35                         |
| Guard plate:     | AISI304 | Water injection plug: | AISI304                      |
| Filling plug:    | AISI304 | Base :                | HT200                        |
| Mechanical seal: |         |                       | Graphite/Carbide/FKM/AISI304 |

### Working conditions

|                                                                                                                                                                              |       |                              |     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|------------------------------|-----|
| Max. ambient temperature(°C):                                                                                                                                                | 40    | Max. liquid temperature(°C): | 120 |
| Max. Operating Pressure(Mpa):                                                                                                                                                | 25bar |                              |     |
| Pumped medium:                                                                                                                                                               |       |                              |     |
| Clean, thin, non-corrosive, non-flammable, non-explosive, Not easy vaporization, Liquid without solid particles and fibers. The liquid can not react with the pump material. |       |                              |     |

### Installation

|                        |      |                      |                   |
|------------------------|------|----------------------|-------------------|
| Inlet&Outlet Diameter: | DN50 | Connection standard: | Flange connection |
|------------------------|------|----------------------|-------------------|

### Motor

|                    |             |                        |      |
|--------------------|-------------|------------------------|------|
| Motor phase:       | Three phase | Protection class:      | IP55 |
| Motor poles:       | 2           | Insulation class:      | F    |
| Motor power(kW) :  | 11          | Frequency(Hz):         | 50   |
| Rated voltage(V):  | 380         | Rated current(A):      | 20.6 |
| Efficiency class:  | IE2         | Power factor:          | 0.89 |
| Drive end bearing: | 7309        | Non-drive end bearing: | 6208 |
| Efficiency(%):     | 91.2        | Starting current(A):   | 210  |

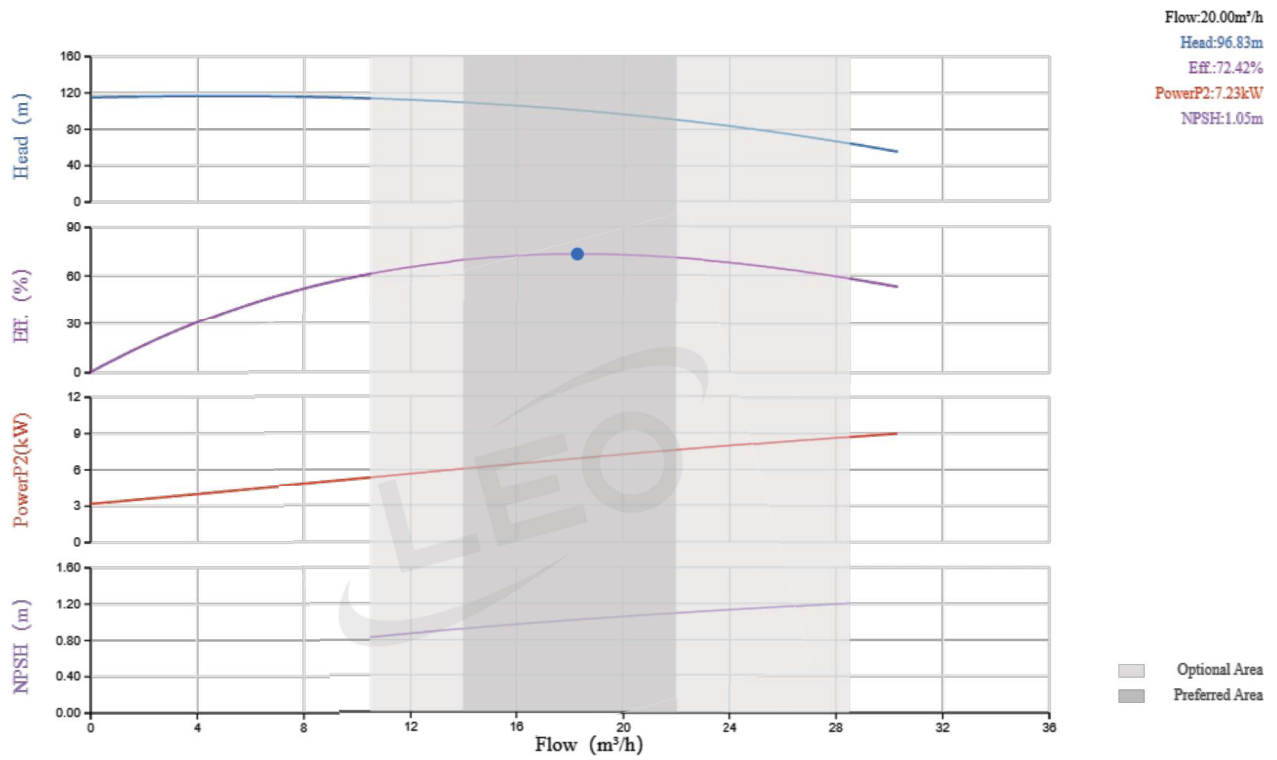
**Weight/Packaging**

|                   |       |                   |              |
|-------------------|-------|-------------------|--------------|
| Gross weight(kg): | 190.8 | Package size(mm): | 1351*401*520 |
|-------------------|-------|-------------------|--------------|

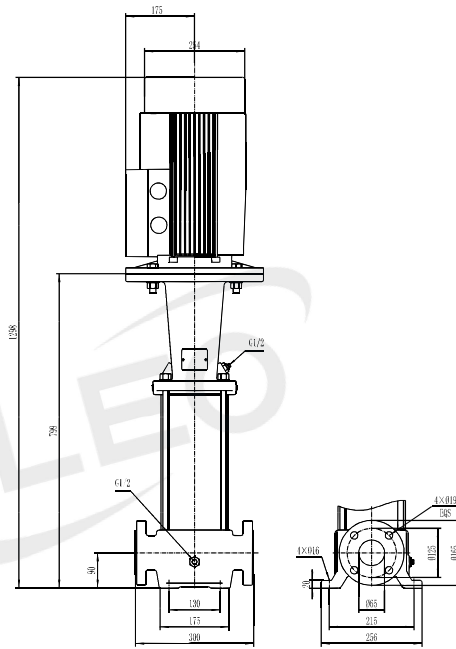
**Area Range Parameters**

|                                             |      |                                             |      |
|---------------------------------------------|------|---------------------------------------------|------|
| Max Q(m <sup>3</sup> /h):                   | 28.5 | Allowable Minimum (m <sup>3</sup> /h):      | 10.5 |
| Allowable Maximum (m <sup>3</sup> /h):      | 28.5 | Min Value Optimal area (m <sup>3</sup> /h): | 14.0 |
| Max Value Optimal area (m <sup>3</sup> /h): | 22.0 |                                             |      |

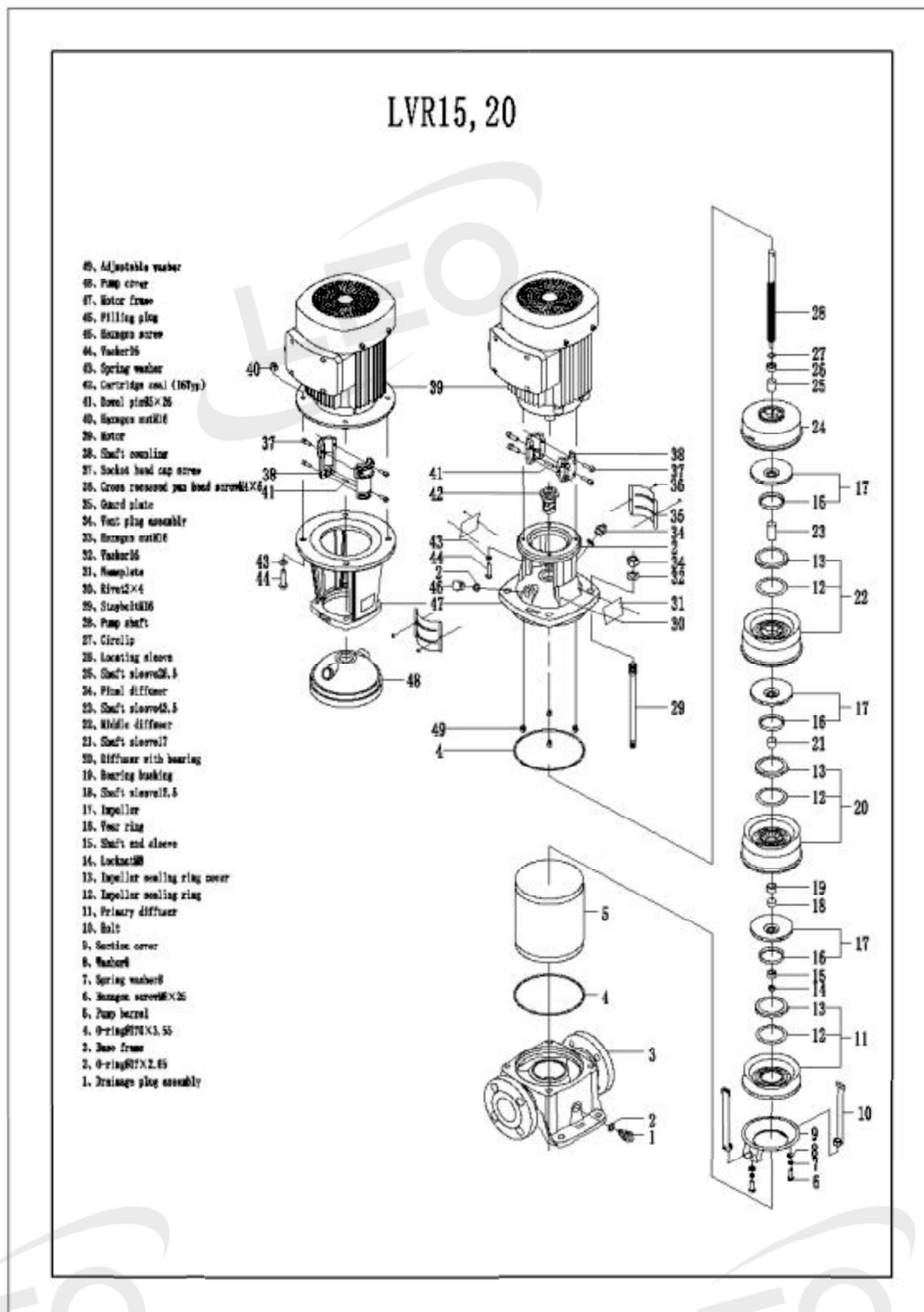
## Performance Curve



## Shape & Size



# Exploded View





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