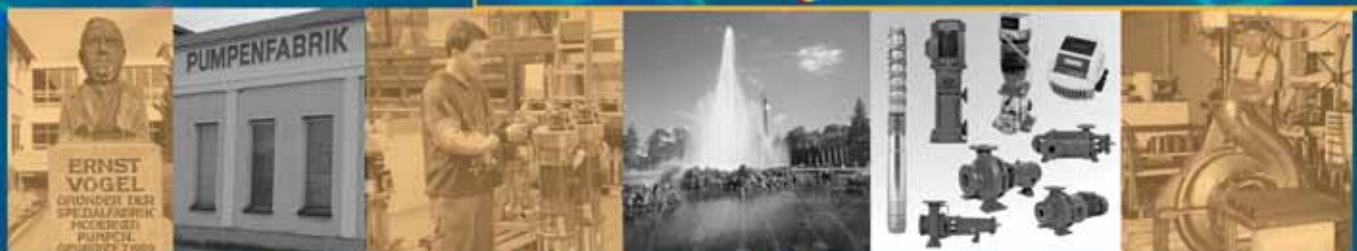




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Vogel Pumpen

# Vogel - Volute Casing Pumps according to EN 733 Design LN / L



*Engineered for life*

## VOGEL Volute Casing Pumps according to EN 733, Design LN / L



Design LN



Design L

### Performance:

Capacity up to 600 m<sup>3</sup>/h (2640 USgpm)  
 Head up to 100 m (330 feet)  
 Speed up to 2950 min<sup>-1</sup> (2950 rpm)

### Pump Sizes:

DN 32 up to DN 150 (1 1/4" up to 6") discharge,  
 sizes DN 125 up to DN 600 (5" up to 24"),  
 refer to design LS, brochure 1300.1.B.

### Temperature of pumped liquid:

max. 140°C (284°F)

### Casing Pressure:

Design LN:  
 up to 16 bar/120°C or 13 bar/140°C

Design L:  
 up to 12 bar/120°C or 10 bar/140°C

Pumps in other materials or for higher casing pressures  
 refer to design IC or ICP.

### Liquids:

Clean and slightly contaminated fluids  
 (without bigger solids)  
 Cold and hot water  
 Condensate  
 Water-Glycol mixtures, oil emulsions,etc.

### Applications:

Water supply and water treatment  
 Cooling and hot water supply in industries and  
 building services  
 Filter systems, etc.

### Materials:

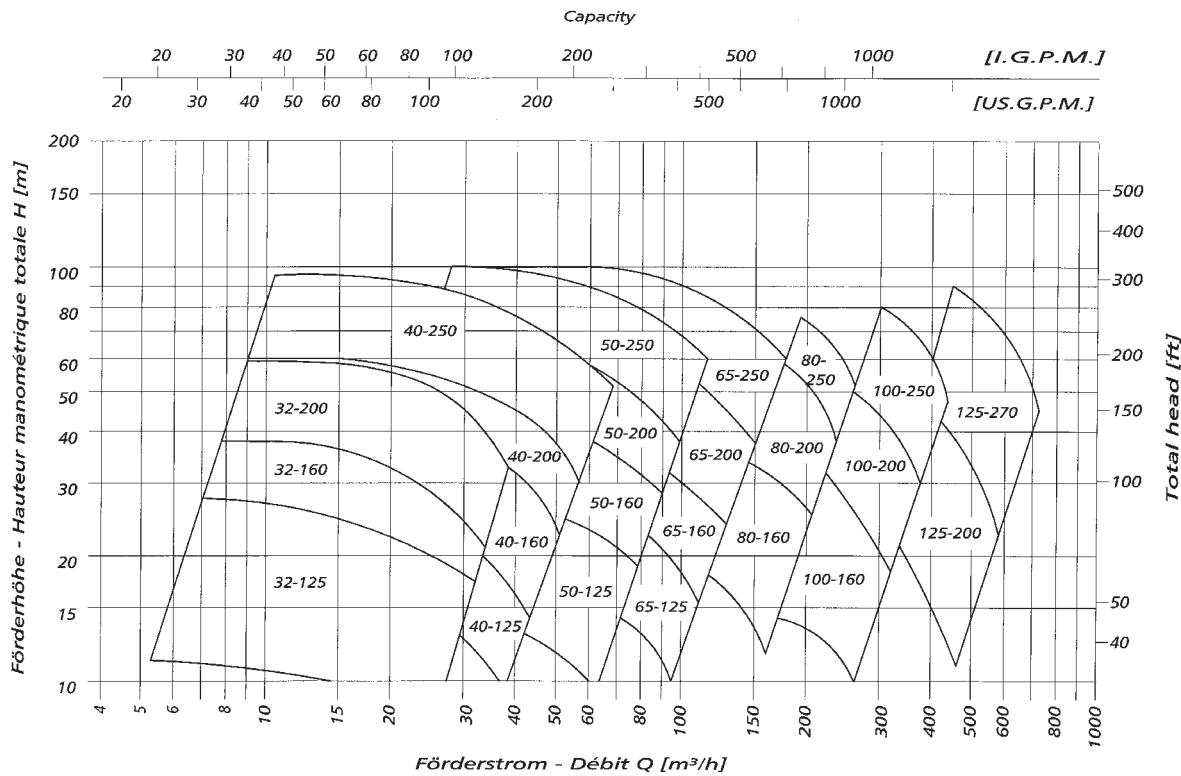
Design	Code	Size	Impeller	Casing, Seal chamber	Wear rings	Bearing frame	Motor adapter	Shaft
LN	VN	32-125 up to 65-125	1.4404	0.6020	1.4402	0.6020 1)	0.6020 1)	1.4401
	NN	65-160 up to 80-250	0.6020		2)			
	SN	CC 480 K						
L	NN	65-315 80-315 80-400 100-160 up to 150-400	0.6025	0.6025	2)	0.6025	0.6025	1.4021
	SN	CC 480 K						

1) some sizes in aluminium

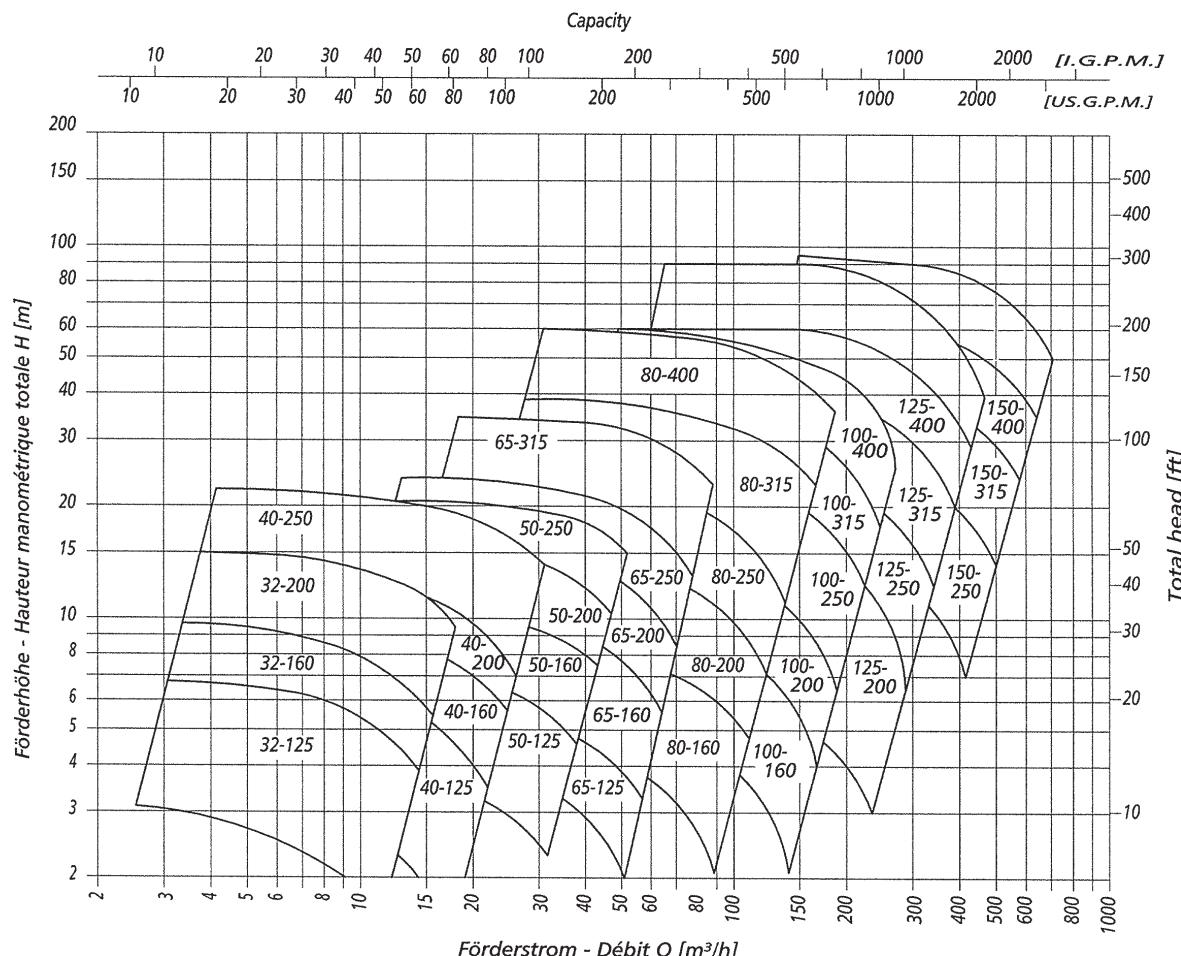
2) optional 0.6020 or 0.6025

## VOGEL Volute Casing Pumps according to EN 733, Design LN / L

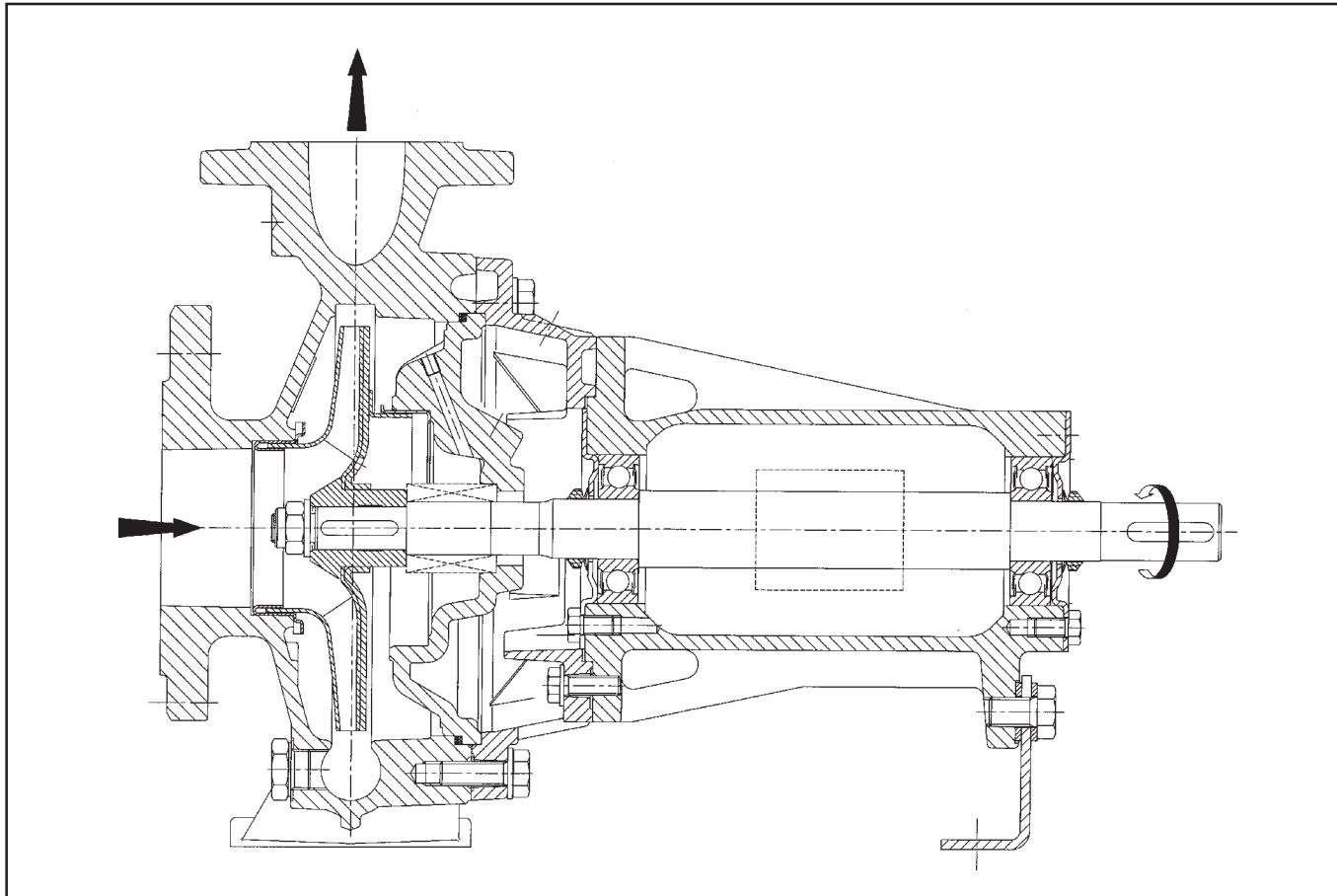
### Performance r.p.m.



### Performance 1450 r.p.m.



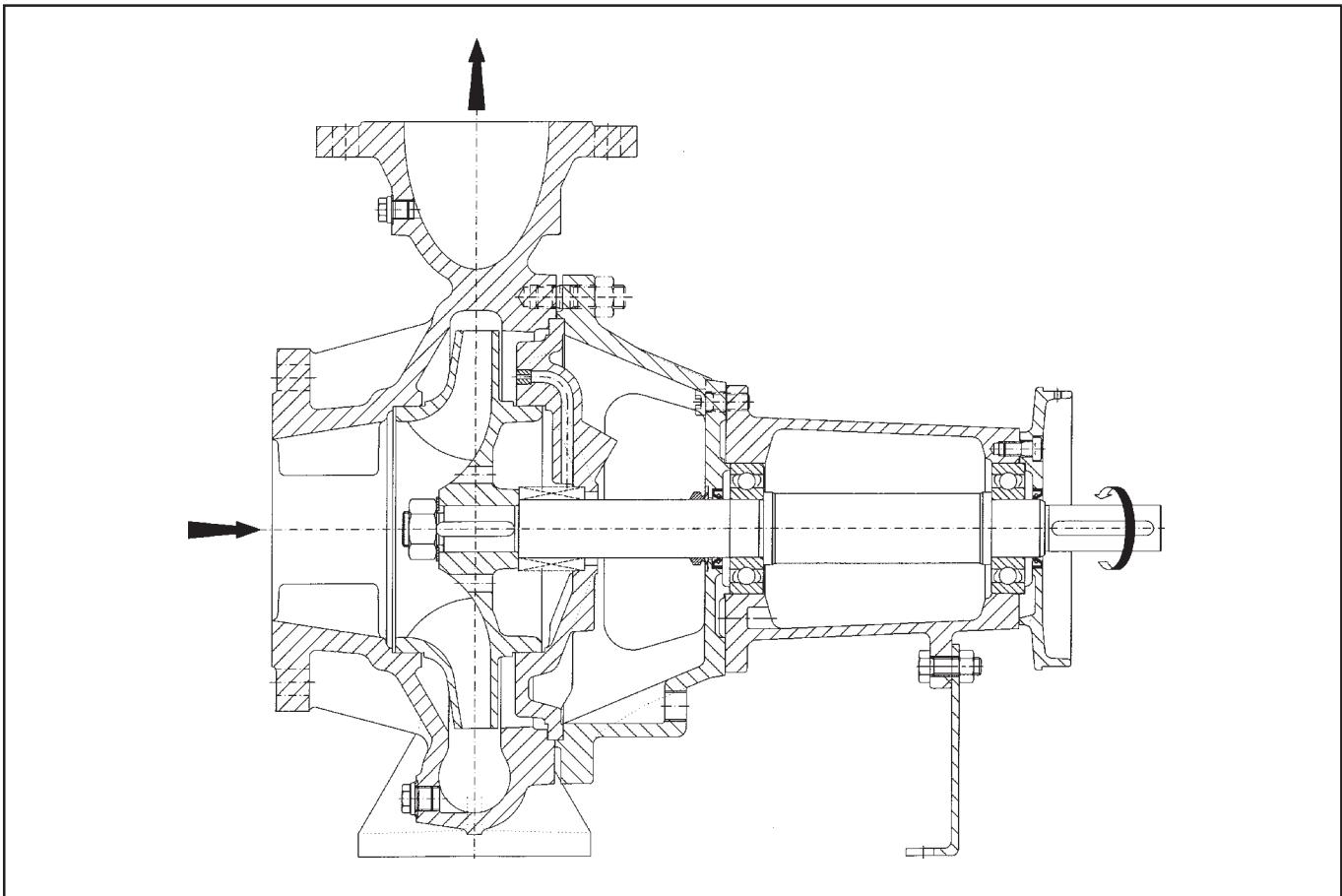
## VOGEL Volute Casing Pumps according to EN 733, Design LN / L



Design LN

### Design Features: LN & L

- Horizontal single stage volute casing pump, designed in accordance with EN 733. The casings are identical with the former DIN 24255 and therefore interchangeable.
- Meet the requirements according to ISO 9908.
- High efficiency enclosed impeller. Sizes 32-125 up to 65-125 standard made of stainless steel 1.4404, stamped and laser welded. Sizes 65-160 up to 150-400 standard cast iron, optional bronze.
- Casing in solid design to absorb the flange forces in accordance with ISO 9908. Suction horizontal, discharge top centerline. Flanges DN 32 up to DN 150 standard PN 10/16, except suction flange DN 200, standard PN10, optional PN 16.
- The back-pull-out system allows simple maintenance. The impeller, the shaft sealing and the bearings are easy removable on the motor side without disassembling the casing from the piping.

**VOGEL Volute Casing Pumps according to EN 733, Design LN / L**


Design L

**Design Features: LN & L**

- Seal chamber dimensioned according to EN 3096.
- Large open conical seal chamber, self de venting with internal circulation for proper lubrication and cooling of the seal. Ribs in the seal chamber prevent the accumulation of air or gas in the area of the seal faces and reduce wear caused by solids in the fluid.
- Shaft sealing by means of single, unbalanced mechanical seal according to EN 12756, design U, version k (former DIN 24 960, I1k).
- Standard mechanical seal materials: Carbon – Silicon Carbide (SiC) – EPDM (BQ1EGG), optional elastomers in FPM (Viton<sup>®</sup>) (BQ1VGG).  
As option also available in SiC – SiC – FPM (Viton<sup>®</sup>) (Q1Q1VGG).
- Solid bearing fram, increased distance of the bearings in relation to the impeller diameter reduces the shaft deflection in the zone of the mechanical seal.

## VOGEL Volute Casing Pumps according to EN 733, Design LN / L



### Accessories:

- Elastic coupling, bigger sizes 65-315, 80-315, 80-400 and 100-160 up to 150-400 optional also with spacer coupling
- Coupling guards – completely closed, according to EN 892
- Steel base plates with level compensation for pump and motor



### HYDROVAR

- HYDROVAR from VOGEL is a compact pump controller.
- Simple mounting and installation.
- The integrated frequency converter has included an automatic controller for pressure, pressure differential or capacity.
- Applications with several pumps allow to have an automated change over in case of faults and to control the lead and lag pump according to demand by means of the integrated interfaces.
- HYDROVAR Smart for performance ranges above 45 kW. Hydrovar Controller without integrated converter.



## VOGEL Volute Casing Pumps according to EN 733, Design LN / L

### Programm Extension



Design LM

#### Volute, Design LMN / LM:

- Horizontal single stage blockpump with direct mounted IEC-Norm Motor
- Sizes from DN 32 up to DN 150 (1 1/4" up to 6")
- Capacities up to 500 m<sup>3</sup>/h (660 USgpm)
- Heads up to 95 m (312 feet)
- Motor Sizes up to 55 kW (75 hp)



Design LMR

#### Inline Pumps LR / LMR & LMZ:

- Inline Design for direct installation into the piping with direct mounted IEC Norm-Motor
- Sizes from DN 40 up to DN 150 (1 1/2" up to 6")
- Capacities up to 350 m<sup>3</sup>/h (1540 USgpm)
- Heads up to 80 m (262 feet)
- Motor Sizes up to 22 kW (30 hp)
- Design LMZ: Twin Inline Pump



Design LS

#### Inline Extension Program LER / LEZ:

- Extended Performances up to 1000 m<sup>3</sup>/h (4403 USgpm)

#### Volute Casing Pumps LS:

- Extension of the performance range of model LN / L
- Horizontal Design according to ISO 5199
- Sizes from 125 up to DN 600 (5" up to 24")
- Capacities up to 4600 m<sup>3</sup>/h (20250 USgpm)
- Heads up to 100 m (328 feet)



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Vogel Pumpen

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„Hinweis gemäß Produkthaftungsgesetz:  
Die angeführten Einsatzmöglichkeiten sind nur als eine  
Produktübersicht aufzufassen. Die genauen Einsatzgrenzen sind dem  
Angebot, der Auftragsbestätigung und der Betriebsanleitung zu  
entnehmen.“

Liste 1100.1.B  
10/2007-e



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