

# Volute casing pumps



## ZLND 32 - 125 ... 300 - 500

### TECHNICAL DATA

Flow:	max. 1800 m <sup>3</sup> /h
Head:	max. 140 m
Speed:	max. 3600 rpm
Material:	cast iron (0B,0C,0E) and stainless steel (4B)
Temperature:	max. 170 °C depending on the shaft sealing and material execution.
Casing Pressure:	material design 4B PN 16 0B, 0C, 0E PN 16 / 10 <sup>1)</sup> / 14 <sup>2)</sup>
Shaft sealing:	mechanical seal or stuffing box
Flange connections:	material design 4B DIN 2501 PN 16 0B, 0C, 0E DIN 2501 PN 16 / 10 <sup>3)</sup>
Direction of rotation:	clockwise when looking at the pump from the drive end.

### APPLICATION

Volute casing pumps of the ZLN range (meeting DIN 24255 / EN 733 and ISO 9908) are used when clear or turbid liquids free from solid particles are to be pumped. Application areas for pumps in this range include:

Automobile, mechanical and general engineering industries  
Food and beverage industry  
Pharmaceutical industry  
Paint industry  
Plastic and rubber industry  
Iron and non-ferrous metal industry  
Paper and pulp industry  
Textile industry  
Building and construction industry  
Heating and air conditioning  
Drainage  
Water supply  
Irrigation

A range of materials is available to meet the specific needs of customers. For applications not covered by this pump range we offer the ISOchem range.

### DESIGN

Horizontal, single-stage volute casing pumps with connections and main dimensions to DIN 24255 / EN 733, plus 19 additional sizes. The design of the pump allows the complete drive unit to be withdrawn from the casing without disturbing the attached pipe work. If a spacer type coupling is used, it is also unnecessary to disconnect the motor.  
The range covers 50 sizes with only 5 different bearing brackets.

### CONSTRUCTION

#### Casing pressure:

Material 4B:	max 16 bar from - 40 °C to +120 °C max 14 bar from 120°C up to +170 °C
Material 0B, 0C, 0E:	max 16/10 <sup>1)</sup> /14 <sup>2)</sup> bar from - 20 °C to +120 °C max 14/9 <sup>1)</sup> /8 <sup>2)</sup> bar from 120 °C up to +170 °C

Max. casing pressure= inlet pressure + delivery head at zero flow

**Please note:** The relevant technical regulations and safety rules must be observed.

#### Flanges location:

Axial suction flange, discharge flange radially upwards.

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#### Flanges:

Material design 4B: Complies with DIN 2543 PN 16  
Material design 0B, 0C, 0E: DIN 2533 PN 16 / 2532 PN 10<sup>3)</sup>  
Flanges drilled according to ANSI 150 can be supplied.

#### Bearings:

Bearing brackets 25, 35 and 45: Two ball bearings, lifetime greased (2Z), design code B, or oil lubrication, design code C.  
Bearing brackets 55 and 65: One double row angular contact bearing on pump side, plus one ball bearing on drive side, grease lubricated S or oil lubricated T.  
Oil lubrication configurations with CLO (Constant Level Oiler) can be supplied.

#### Shaft sealing:

Shaft sealing either by stuffing box or mechanical seal.  
Code 041: Self-sealed, uncooled packing rings  
Code 052: Uncooled packing rings, external sealing liquid  
Code AF3: Balanced mechanical seal, seal face materials SiC/Carbon, elastomer EPDM  
Code BJ3: Unbalanced bellows mechanical seal, seal face materials SiC/Carbon, elastomer EPDM  
Code C23: Unbalanced bellows mechanical seal, seal face materials SiC/Carbon, elastomer EPDM  
Code AFS: Balanced mechanical seal, seal face materials SiC/ SiC, elastomer FPM (Viton)  
Code BJS: Unbalanced bellows mechanical seal, seal face materials SiC/ SiC, elastomer FPM (Viton)  
Code C2S: Unbalanced bellows mechanical seal, seal face materials SiC/ SiC, elastomer FPM (Viton)  
Code AFK: Balanced mechanical seal, seal face materials SiC/carbon, elastomer FPM (Viton) double PTFE (Teflon) wrapped  
Code BJJ: Unbalanced bellows mechanical seal, seal face materials SiC/Carbon, elastomer FPM (Viton)  
Code C2J: Unbalanced bellows mechanical seal, seal face materials SiC/Carbon, elastomer FPM (Viton)  
Codes AX3, AXS, AXK: are equivalent to AF3, AFS, AFK plus quench  
Codes AY3, AYS, AYK: are equivalent to AF3, AFS, AFK plus heating  
Code A93, A9S, A9K: are equivalent to AF3, AFS, AFK plus external flushing

As an option, Code 051 (as 052, but with inlet and outlet) and other sealing execution can be supplied on request.

<sup>1)</sup> From 80-400 to 300-500 except 150-500

<sup>2)</sup> 150-500

<sup>3)</sup> 150-200, 150-250 and 200-250