



Pump specifications		
Type	ZD 900	ZD 600
Design	with gear casing	with gear casing
Max Capacity	100 m <sup>3</sup> /h	65 m <sup>3</sup> /h
Max Discharge head	20 m H2O	20 m H2O
Max Suction head	9,6 m H2O	9,6 m H2O
Tank capacity	90 l	90 l
Connecting parts	4 /6"	4"/6"
Weight (empty)	1075 kg	1075 kg
Diesel engine	Hatz 1D81Z	Hatz 1D81Z

### ZD 600/900 OPEN FRAME DIESEL

This ZD 600/900 OPEN FRAME DIESEL pump unit is our most popular dewatering pump on the largest construction sites in the Middle East. This version, originally from GEHO, has proven its reliability during the last decades.

The GEHO ZD series is a twin-cylinder quadruple-acting crankshaft-driven piston pump. The GEHO design is purpose build contractor proven and is extremely suitable for wellpoint dewatering by gravity or vacuum and for horizontal dewatering (drainage).



### Advantages of a ZD piston pump

- Constant water and air flow, independent of suction and discharge head
- Self-priming with a suction lift (vacuum) of 9.6 mWK without the aid of an separate power absorbing vacuum pump
- Permanent high efficiency minimizing energy consumption
- About twice as efficient as a conventional vacuum priming impeller pump
- Robust design for ease of transportation and handling
- Rapid and economical maintenance and low spare parts usage
- economical and longer carefree service life reducing overall project costs
- Unprecedented high availability allowing continuous and unattended operation
- accessibility for ease of inspection and maintenance which require no special skills
- Resistant to brackish water
- Permit universal application. Depending on soil conditions, up to 100 wellpoints and up to 300 metres of header pipe can be connected to a single pump
- Can run dry without causing damage to the pump

### Clasal controls the complete line of production

- Full control over the entire production line
- More than 100 years of experience as manufacturer of piston pumps
- Every pump is extensively tested
- Use of wear-resistant and durable materials
- Own foundry which is ISO 9001 certificated

### Why a ZD pump from Clasal?

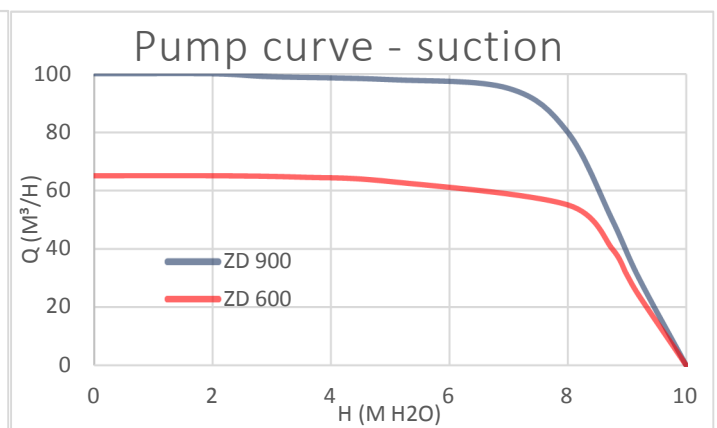
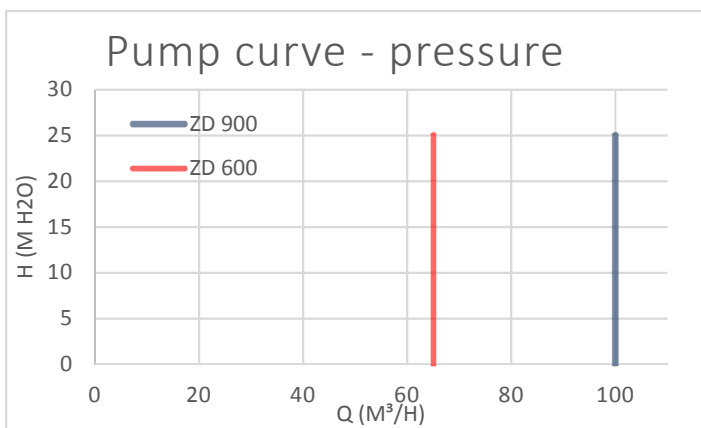
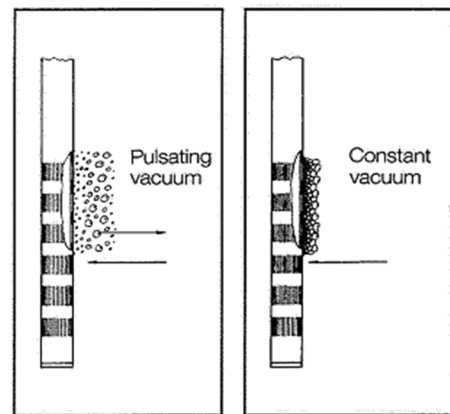
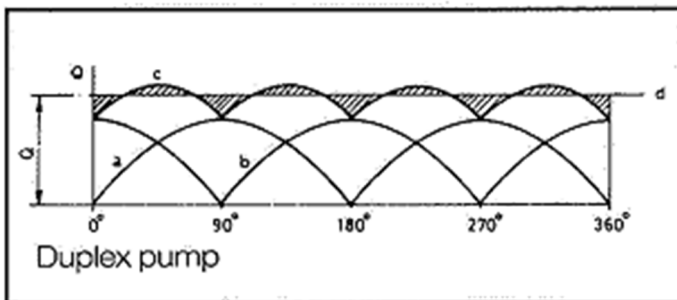
- Compact and light, yet large in capacity, efficiency and service life
- Original GEHO spare parts

### STANDARD TECHNICAL SPECIFICATIONS FOR THE ZD 600 AND ZD 900

<b>Gearbox</b>	Tough, compact construction with integral single helical precision gears
<b>Lubrication</b>	Self-contained oil splash lubrication
<b>Piston discs</b>	Wear resistant high molecular polyethylene
<b>Cylinders</b>	Stainless steel, easy replaceable
<b>Piston rod</b>	Abrasion and corrosion resistant hard surface piston rods
<b>Valve seats</b>	Bronze, saltwater resistant
<b>Valve system</b>	Rubber discs with stainless steel guides
<b>Gearbox, pump body</b>	Alloyed cast iron
<b>Inspection covers</b>	Covers at the side of the pump body for cleaning
<b>Cross head</b>	Attached to the connecting rod with sleeve bearings
<b>Crankshaft</b>	Antifriction type drive shaft and crankshaft bearings

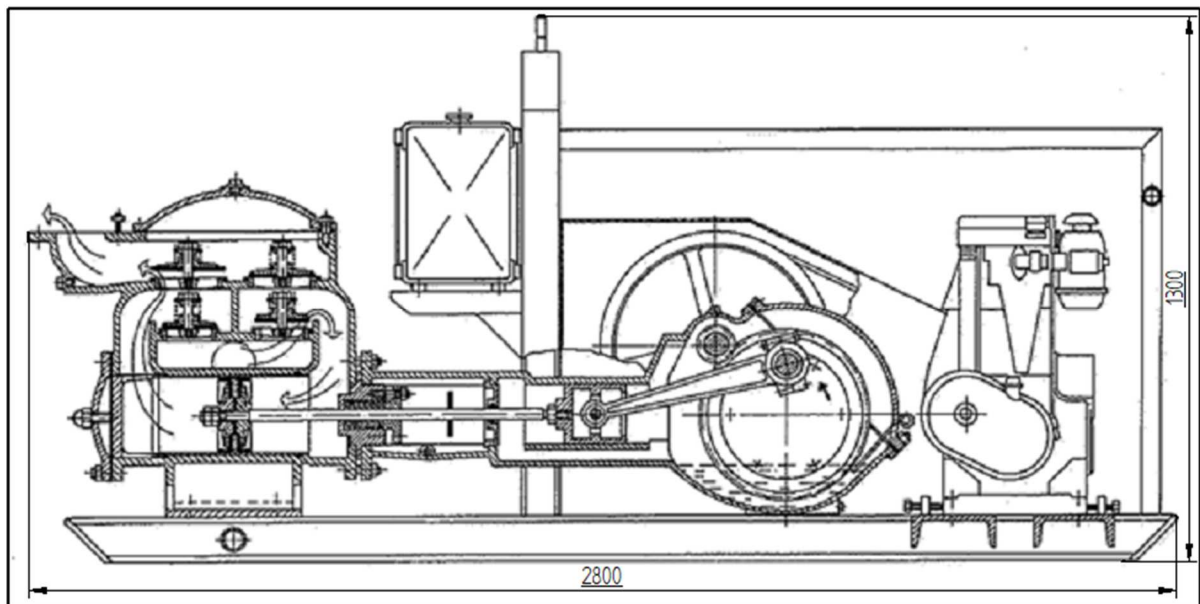
### Operational characteristics

Water, air or water and air mixtures are primed and discharged 4 times per crankshaft revolution. Two crankshaft driven pistons are arranged in a Vee at 90°, so that the four piston strokes for each revolution follow in regular succession. The crank timing produces a moderate pulsating type action in the dewatering line that prevents clogging of the wellpoint strainers and achieves priming from greater depths.



**Diesel engine**

Brand	Hatz
Type	1D81Z
Engine rating	7,5 kW
Max.rounds per minute	1950 rpm
Fuel consumption	0,7 - 1,1 l/hour
Cylinder capacity	0,667 l
Number of cylinders	1
Cooling system	Air cooled





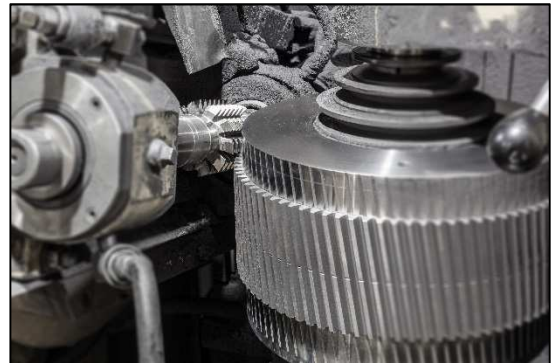
Bronze valve seats and optimal hydraulics ensure the highest efficiency and the best vacuum.



Because we have all the technology in-house, we can always guarantee the same top quality.



All parts are finished at Clasal using high-tech machines.



Gear wheels are finished in our own workshop.



Clasal can use its own foundry.



Clasal only works with SKF bearings.