

# Solutions

## Agriculture

Western Pump are specifically designed for use in the agricultural sector. Thanks to the wide range of Western products, we have met the demands for small installations as well as complex corporate projects. Western Pump has installed its pumps in the most extreme conditions while maintaining top efficiency and excellent performance.

## Industry

The experience and knowledge gained working in the mining and oil and gas industries has allowed Western to offer the most well designed products. These pumps are adapted to be reliable and resistant, that satisfy the needs of the most demanding industries.

- Mining
- Oil & Gas

# Certifications

The ISO9001 and ISO45001 certifications confirm the quality, durability and resistance in all operating conditions that Western Pump guarantees.

The pump plant is equipped with a hydraulic inspection unit capable of testing the pumps for flow rate, pressure, horsepower, performance curves, net positive suction head (NPSH), cavitations, water hammer and water quality. AIC's field research continues to resolve customer problems and provide solutions that are both sustainable and practical.

The modern manufacturing facility, ISO certifications and a dedicated staff has enabled

the company to produce reliable pumps of optimum operational efficiency with a long service life in the most aggressive operational circumstances. These pumps can be deployed in wells down to 1,200 feet and discharge from 300 to 3,000 gallons per minute.



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الخریفة للصناعات  
Alkhorayef Industries

# About us: Alkhorayef Group

The Alkhorayef Group was established in 1957 with the vision to create a bold and daring business in the agriculture sector. The group of companies quickly became a standard of excellence representing the most reputable international brands in agriculture. Alkhorayef Group's four main values of trust, commitment, excellence, and inclusion have always characterized its diverse business activities and have helped to create an extensive network that operates in more than 40 countries today.

The companies that comprise the Alkhorayef Group not only represent the most recognized and reliable brands on the market, they also

maintain the same standards of excellence for customer service provided after sales. The clients are treated as partners. Their goals are the same goals that the Alkhorayef Group diligently works to achieve.

Since its beginning, the Alkhorayef Group has expanded and diversified its activities, consequently branching into several subsidiary companies. These companies are managed independently but remain unified by the Alkhorayef Group's mission and code of ethics. The subsidiaries' businesses are active in the agriculture, energy, machinery, and printing sectors and employ 2,800 highly qualified workers around the world.





# Western Pump

Vertical Turbine Pump is a type of rotodynamic pump that use radial or modified radial flow impellers in a vertical configuration. These pumps are typically multistage pumps with several levels of impellers encased in a bowl assembly and can further be classified as deep well or short set pumps.

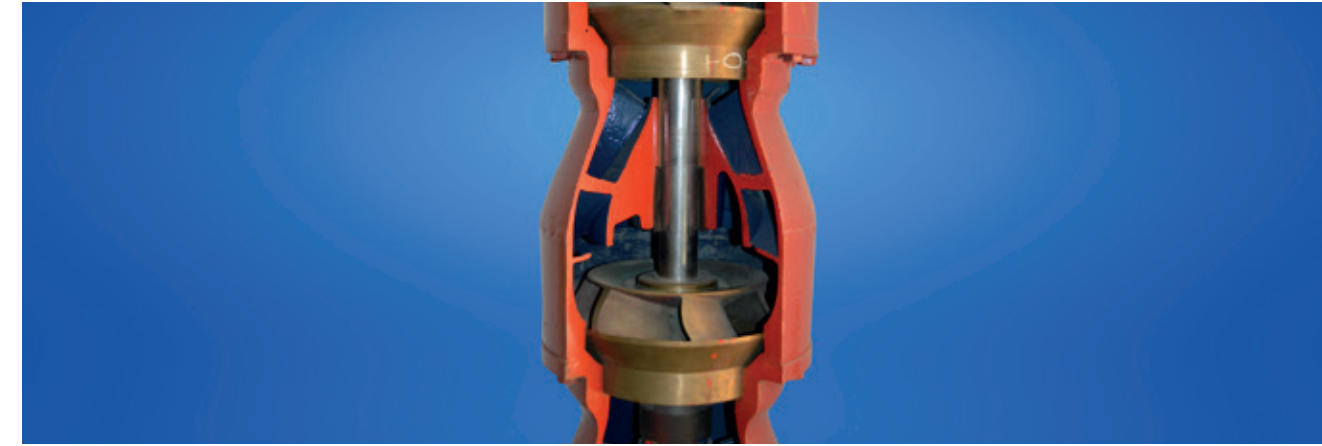
Western Pump are vertical pumps with hollow shaft motor that are characterized by their great electrical efficiency and their optimal hydraulic performance.

The turbines used in Western Pump are made with bronze and standardized, however, it is possible to request stainless steel.

Western Pump have a threaded flange system which avoids the use of flanges, making it a very suitable system to be used in small diameter wells. Furthermore, with this system bolts are not necessary which reduces possible rust as well as maintenance and repair.

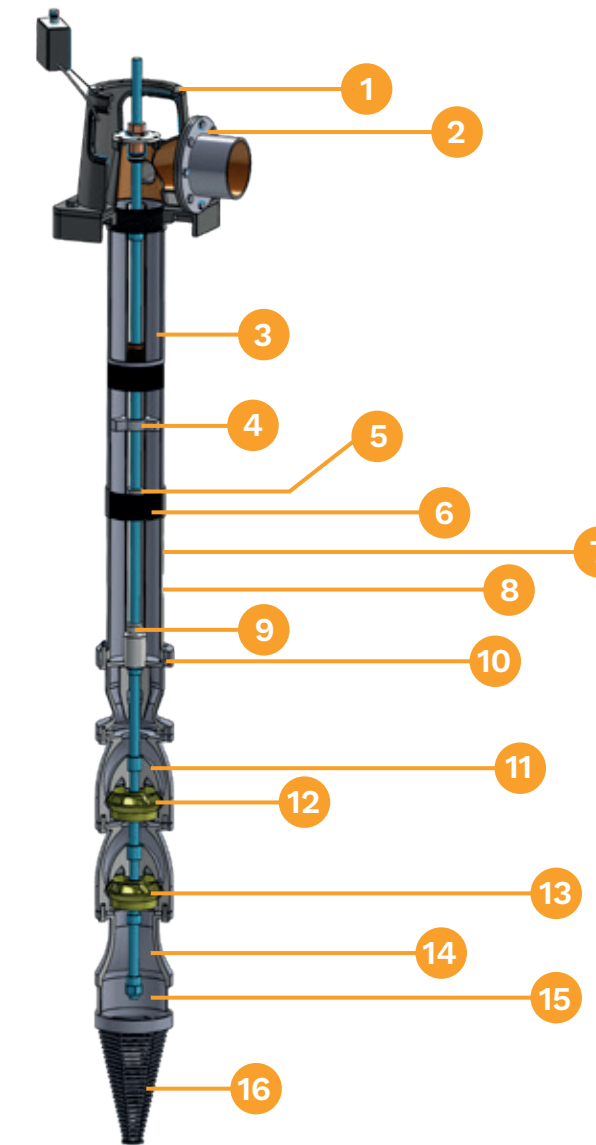
The pump is supported by sections of column pipes and shafts with sleeves that connect it to the outside. The strength of the axis allows these pumps to be installed at depths up to 1,600 feet.

All the pumps are custom made for each client and their specific use, taking into account where the pump will be installed and operated.



NO.	PUMP MODEL	DISCH. CONN.	FLOW CAPACITY (GPM)	HEAD RANGE (ft)	RPM	HP
1	8BWL	4, 5, 6	250-400	32-22	1770	2.5-3.2
2	8KH	4, 5, 6	200-400	34-22	1770	2.5-3.0
3	8TH	4, 5, 6	350-550	25-18	1770	2.9-3.1
4	8CWM	4, 5, 6	300-550	27-18	1770	3.0-3.5
5	8DH	6	400-700	32-22	1770	4.8-5.5
6	9BWH	5, 6	400-550	43-44	1770	5.8-6.7
7	9BEH	5, 6	400-600	49-40	1770	5.8-6.7
8	10KEH	5, 6	450-750	55-40	1770	8.0-10.0
9	10BWH	5, 6	550-750	52-42	1770	8.0-11.0
10	11DWEH	8	600-1100	73-54	1770	16.0-21.0
11	11BEH	6, 8	600-1200	75-55	1770	15.0-21.0
12	11AWH	6, 8, 10	650-1000	80-62	1770	18.0-22.0
13	11BWH	8, 10	1000-1500	66-38	1770	21.0-24.0
14	12BWH	8, 10	1000-1650	70-50	1770	24.0-30.0
15	12DEH	8, 10	1600-2700	62-40	1770	36.0-39.0

# Parts



## 1 Discharge head

Supports Driver and pump column; discharges water from pump column.

## 2 Companion flange

Connects discharge pipe to integrally cast flanges on discharge head.

## 3 Steel tube

Turned, ground and polished carbon steel with ends faced and threaded. Available in various sizes. For all types of pumps.

## 4 Centering spider

Moulded of hard rubber of three spoke design for centering tubing in column.

## 5 Brass Line Shaft Bearing

Special alloy brass bearings support the line shaft. Bore is precision machined for long trouble free life and is grooved to assure proper lubrication. Available in various sizes.

## 6 Pipe coupling

Used to join all sections of line shafting throughout unit. Ductile iron made. Durable and reliable. Available in different sizes 3", 4", 5", 6", 8", 10".

## 7 Column pipe

Steel, with ends faced and lathe cut threads to insure accurate fit in couplings. Selected sizes give proper velocity of water without excessive friction loss.

## 8 Tube adapter

Special alloy brass tubing. Provide connection between pump discharge case and line shaft enclosing tube. Made in bronze. Available in various sizes.

## 9 Shaft coupling

Connects button shaft to bowl assembly shaft. May be tapped with different thread diameters. Steel made.

## 10 Discharge case

High strength cast iron with flow strengthening vanes connects pump bowl to column pipe. Large area relief prots are specially designed to reduce pressure on the shaft seals and lower by-pass flow exit velocities thereby reducing impingement damage to well casing.

## 11 Intermediate case assy

High machining processes for smooth water flow. Stainless Steel or Cast iron.

## 12 Impeller

Special alloy casting with flow passage designed for high performance, long life and efficiency. Full enclosed type precision machined and balanced for vibration free operation. Durability, high efficiency and less power consumption. Bronze or Stainless steel. Made in USA.

## 13 Collet

Tapered wedge type design fastens impeller securely to the pump shaft. Stainless steel made. Available in various sizes.

## 14 Suction case

High strength cast iron with straightening vanes. Connects suction pipe or strainer to bottom bowl. Hollow hub contains reserve grease supply for bearings. A large plugged opening is provided at the bottom of the hub to facilitate bearing replacement.

## 15 Suction pipe

Pipe via which the water is carried to the pump.

## 16 Strainer

Cone type strainer is available to prevent entry of foreign objects into the pump.

## Types of Western Pump

### Water lubricated pump

The shafts are directly coupled with discharge heads.

This application is used for shallow wells or water reservoirs where the static water level is no deeper than 200 ft.

High flow and economical pump for freshwater applications.

### Oil lubricated pump

The shafts are protected by external tubes that use a completely enclosed lubrication system to ensure efficient transmission of mechanical power through the whole system. Usually used by deep wells with static water level is deeper than 200 ft.

Long-life pump with minimal maintenance requirements.