

# PT. Archimedes Global Pump

**Brief information PT. Archimedes Global Pump**



# Visi dan Misi

## Visi

- Menjadi pemain pompa yang **terpercaya**, dapat diandalkan karena **kualitas**, pelayanan dan berorientasi pada faedah bersama bagi seluruh stake holder untuk bisnis jangka panjang.

## Misi

- Memberikan nasihat agar customer memperoleh sistem perpompaan yang **handal dan ekonomis** dengan produk dan jasa yang berkualitas.
- Menyelaraskan** kebutuhan customer dengan barang dan jasa kami
- Mampu memberikan **penyelesaian** pada customer untuk masalah pompa air secara profesional.
- Bertanggung jawab** atas produk dan jasa yang kita sampaikan kepada customer.



# Brief corporate introduction

## **The Management team**

Most of management team have been in pump business for more than 20 yrs from engineering, after sales & service, sales, marketing, Management field.

## **The Company**

To catch dynamic challenges in pump business, we established PT. Archimedes Global Pump in late 2015.

The company is designed to be reputable player in the future, carrying good quality product from very selected reputable factories all around the globe, that is the reason we have our own brand and have great partnership.

## **The Partner**

Our Partner is quality producer in their business. Together with them we synergize to satisfy our stake holder



# Our Partner

## **Pump Factories**

We only select quality products from responsible, reputable factories. Understanding that no any factory have strong in all product range.

**Ebara Densan** is our partner based on OEM, they will produce submersible motor for Archimedes and provide support after sales & Service to Archimedes

**Anavalos pump** is our partner based on OEM, they will produce pump for Archimedes and provide support after sales & Service to Archimedes

## **Control panel and system integrator**

We have partner and inhouse control panel maker and system integrator, which have strong present and experience.

PT. Penta Power Indonesia, our sister company will be our partner in control panel & System integrator.



# Our Partner

## **After sales & Service**

Since we need to take care after sales & Service as well, we provide in house facility for after sales & Service and also support from our partner which having adequate workshop & technical competent.

CV. Yura Engineering and PT. Penta Power Indonesia are our partner for after sales & Service



## Brief corporate introduction

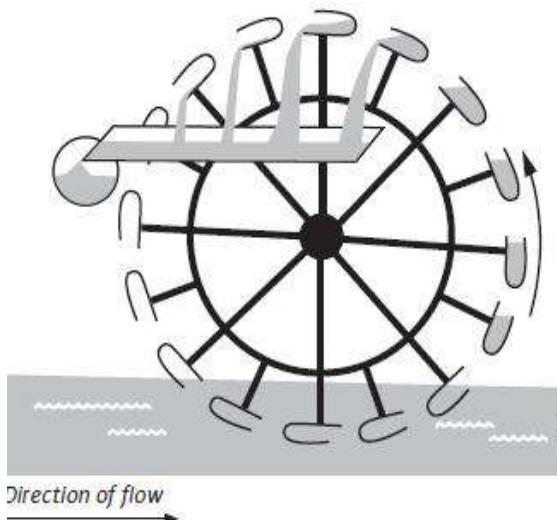
**The Product range but ot limited are :**

- Submersible bore hole stainless steel
- Submersible motor
- Submersible bore hole cast iron
- 3" Submersible pump
- Vertical Turbine pump
- End suction pump
- Horizontal multi stage (Cast Iron)
- Vertical Multi Stage
- Split Case
- Inline pump
- Horizontal Multi Stage SUS
- Solar pump
- Control Panel
- Submersible sewage



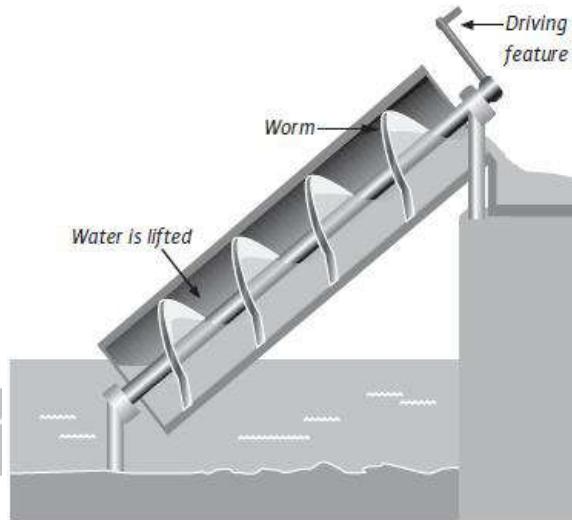
# Pump history

Illustration of a Chinese scoop wheel



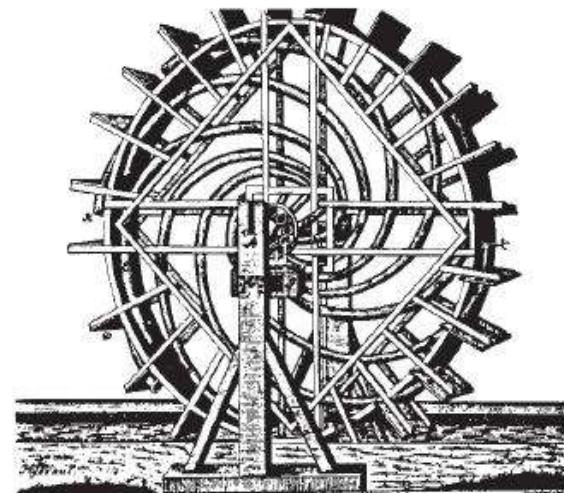
lift water. Archaeological digs have found bucket conveyors of this kind in both Egypt and China from around 1000 BC. The following illustration is a reconstruction of a Chinese scoop wheel. This is a wheel with attached clay pots, which pour out the water when they reach the top.

Illustration of Archimedes' screw



Archimedes (287–212 BC), the greatest mathematician and scientist of ancient times, described the screw that would later be named after him in 250 BC. It lifted water by turning a spiral/worm in a pipe. However, some of the water always flowed back, as effective sealing was then unknown. As a result, a relationship was observed between the incline of the screw and the flow rate. A choice could be made in operation between a greater quantity or a greater delivery head. The steeper the incline of the screw, the higher the delivery head when the quantity decreases.

Illustration of Jacob Leupold's water wheel



An ingenious improvement on this concept was devised in 1724 by Jacob Leupold (1674–1727), who built bent pipes into a wheel. Turning the wheel forced the water to be lifted to the middle axis of the wheel. The flow of water in a river also serves as the drive of this lifting plant. A particularly noteworthy feature of this design is the shape of the bent pipes. It is remarkably similar to the shape of today's centrifugal pumps.

## A3SP Multistage Submersible Electric Pump



### APPLICATIONS

Submersible electric pumps for 3" wells or larger. These units have a very extensive range of applications for lifting and distribution in civil and industrial water systems, filling of pressure vessels and tanks, pressurization and irrigation systems

# Submersible bore hole stainless steel



## Applications

- For water supply, Ground water lifting from well, open pit
- For boosting, transfer
- For irrigation, water spray
- Dewatering for high rise building, mining etc.
- Horizontal application is possible



# Submersible bore hole stainless steel



## Performance & Feature

- Capacity up to 1 ~ 95 m<sup>3</sup>/h
- Head Up to 490 m
- 100% SUS 304 Stainless steel
- Superior hydraulic efficiency
- Sand resistance



# Submersible Motor



## **Performance & Feature**

- from 4 " to 8 "
- from 0.37 kW to 55 kW.
- Strict Quality control
- 100 % individual test
- long experience & Responsible
- 18 month warranty period
- Available in standard and stainless steel AISI 304 material
- Pre motor water filled



## Compact Booster inline pump



### Performance & Feature

- from 4 " to 8 "
- from 0.37 kW to 55 kW.
- Capacity up to 2 x (1 ~ 95) m3/h
- Head Up to 490 m
- Strict Quality control
- 100 % individual test
- long experience & Responsible
- 18 month warranty period
- Available in standard and stainless steel AISI 304 material
- Including manifold and control panel

# Constant Speed Pressure Booster Unit



## CONSTANT SPEED PRESSURE BOOSTER UNIT

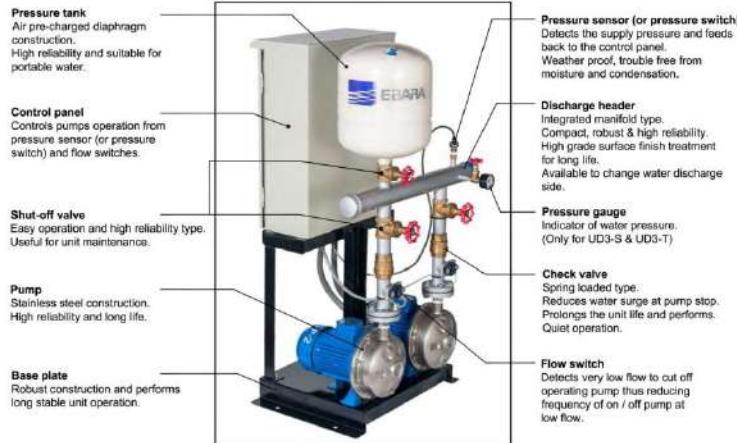
MODEL : UD3

### ■ APPLICATIONS

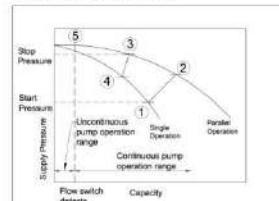
1. Domestic : High-rise buildings, Condominiums, Apartments etc.
2. Commercial : Office buildings, Hotels, Shopping centers etc.
3. Industrial : Factory utility, Manufacturing & processing industries applications etc.
4. Sodal service : Schools, Hospitals etc.

### ■ FEATURES

1. All components are integrated on a rugged steel base. It is ready for use by only connecting with supply piping and to the power source.
2. Layout is very compact and much lighter than conventional units. It occupies lesser space and requires easier installation than conventional units.
3. The flow control system which prevents frequent start and stop of pumps, requires only small hydro-pneumatic pressure tank and ensures constant fresh water supply.
4. Pumps are in parallel operation for high demand and alternating in low demand, suitable for energy-saving.
5. Various options are available on request.



### CONTROL SYSTEM



- Step 1) Both pumps are stopped when water tank is fully charged. In this condition water is supplied from the pressure tank, and water pressure in tank gradually decreases.
- Step 2) When water pressure decreases, first pump starts at pressure point 1 and water is supplied from pump.
- Step 3) When more water is required and water pressure decreases to lower point 1 again, second pump also starts, operation point shifts to point 2 and system shifts to parallel operation.
- Step 4) When second pump starts, the timer starts to count. After that when water consumption decreases, the water pressure increases to point 3, and 60 seconds pass after second pump starts. First pump is stopped and operation point shifts to point 4.
- Step 5) When water consumption further decreases, and the flow switch detects small flow rate. Second pump stops (point 5). Flow switch detecting point is at small capacity point, therefore pump continuous operation range is much wider, accordingly pump start frequency is greatly decreased.

# Submersible Sewage



## Applications

- For water Intake, Water treatment Plant.
- Dewatering for high rise building, mining, etc
- Waste water treatment Plant
- Flood control system as sludge pump.
- Dry application is possible

## TYPES OF MEDIA THAT CAN BE PUMPED

- Wastewater containing abrasive, fibrous and solid matter
- Wastewater containing air or gas
- Raw wastewater
- Raw sludge
- Rainwater, surface water and combined wastewater



# Submersible Sewage



## Performance & Feature

- Capacity up to 2 ~ 540 m<sup>3</sup>/h
- Head Up to 90 m
- Various impeller type
- Various material and accessories
- Superior hydraulic efficiency
- Sand resistance

## Submersible bore hole cast iron



### **Applications**

- For water supply, Ground water lifting from well, open pit
- For boosting, transfer
- For irrigation, water spray
- Dewatering for high rise building, mining etc.
- Horizontal application is possible



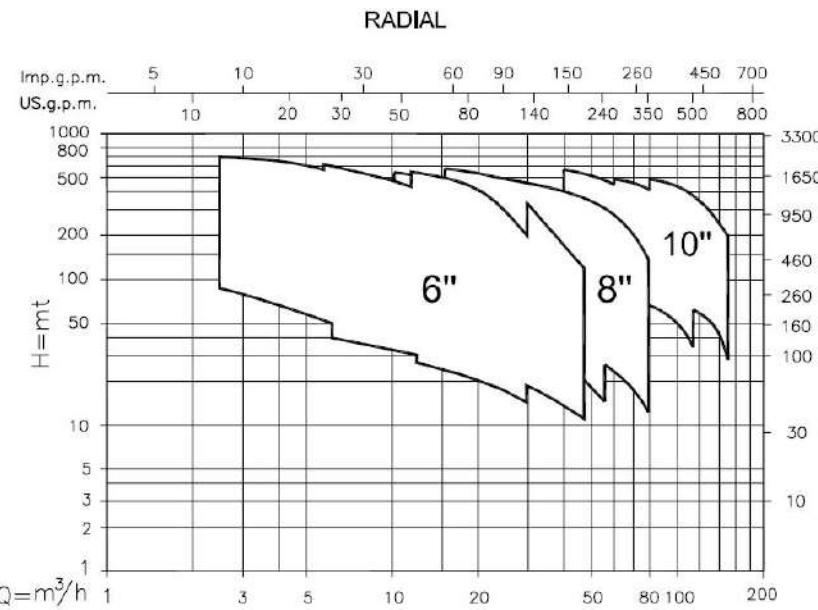
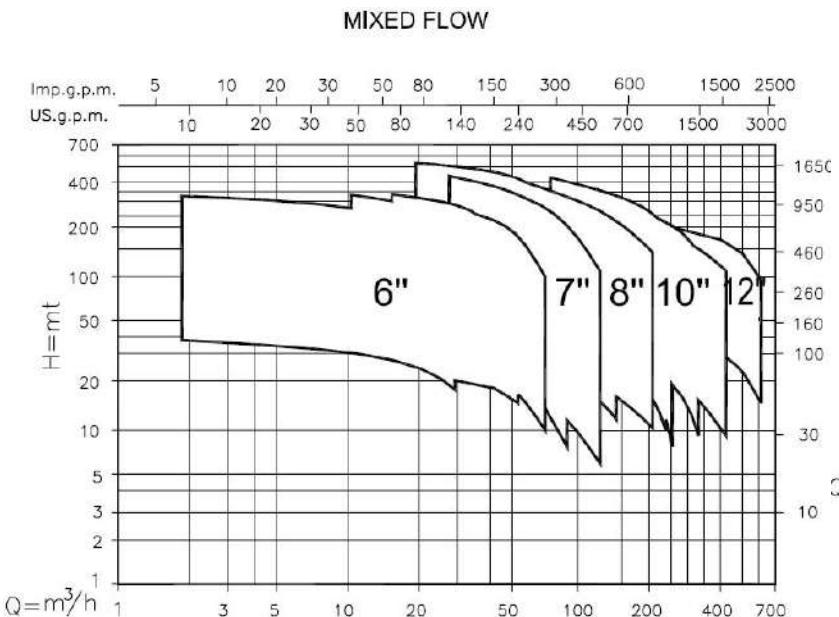
## Submersible bore hole cast iron

### Performance

- For Radial flow :
  - Capacity up to 150 m<sup>3</sup>/h
  - Head Up to 600 m
- For Mixed flow :
  - Capacity up to 600 m<sup>3</sup>/h
  - Head Up to 300 m



# Submersible bore hole cast iron



# Vertical Turbine pump

## Applications

- For clean water, sea water, ground water, etc.
- For water supply, intake, transfer
- For Flood control, Irrigation
- For civil and industrial applications.
- For fire fighting applications.

## Performance

- Capacity up to **10,000 m<sup>3</sup>/h.**
- Head up to **600 m.**
- Suitable to connect with pulley, tractor, right angle gearbox

## Features

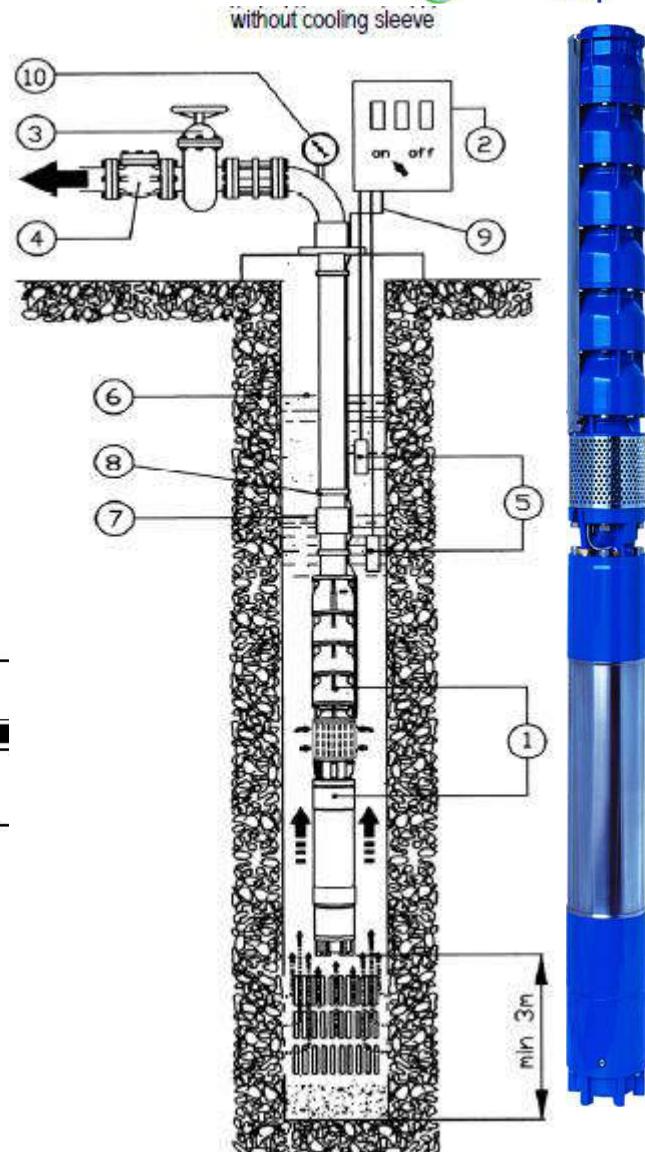
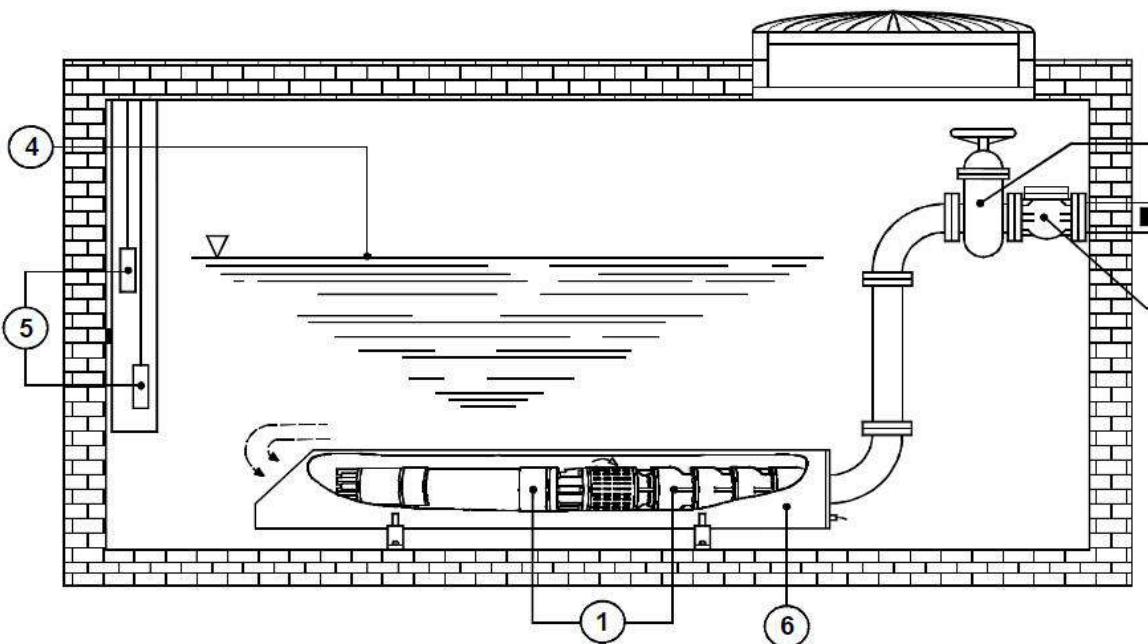
- Vertical turbine cast iron or stainless steel pumps
- Delivery casing with built-in non-return valve.
- Impellers made of cast iron, bronze or stainless steel.
- Flexible prime mover option, electric motor, engine driven



# Submersible bore hole cast iron

## Feature

- Robust construction,
- Available mixed flow and radial flow impeller.
- Available for horizontal or vertical installation



# End suction pump

## **Applications**

- For water supply, boosting, transfer, distribution
- For boosting in high-rise buildings.
- fire fighting applications
- For civil and industrial applications.
- cooling and air-conditioning systems



## **Performance**

- Capacity up to 500 m<sup>3</sup>/h.
- Head up to 160 m.
- Rated motor power output 0,55 kW up to 160 kW.
- Available in 2 poles and 4 poles



## **Features**

- Wide operation range
- PN 16 discharge flange
- Easy maintenance without having to remove pump body or pipeline discharge
- Flexible prime mover option, electric motor, engine driven



## Horizontal multi stage (Cast Iron)



### **Applications**

- For water supply, boosting, transfer
- For boosting in high-rise buildings.
- For civil and industrial applications.
- cooling and air-conditioning systems



# Vertical Multi Stage

## **Applications**

- For water supply, boosting, transfer, distribution
- For boosting in high-rise buildings.
- Fire fighting applications
- For civil and industrial applications.
- cooling and air-conditioning systems

## **Performance**

- Capacity up to 180 m<sup>3</sup>/h.
- Head up to 300 m.
- Rated motor power output 0,55 kW up to 75 kW.
- Available in 2 poles



## Vertical Multi Stage

### Features

- Wide range
- Available in stainless steel AISI304 or AISI316
- Impellers and diffusers made of stainless steel in order to achieve durability, superior efficiency and the highest performances



# Horizontal Multi Stage pump (AHM Series)

## Applications

- For small scale domestic water supply, boosting, transfer, distribution
- Liquid transfer and circulation of liquids within light industry and farming
- Heating and cooling systems
- Specialized OEM equipment

## Performance

**Liquid temperature : 0° C to +90° C**

- Capacity up to 14 m3/h for individual pump
- Head up to 57 m.
- Available in 1 phase 220V and 3 phase 3x380 V.
- Liquid temperature : 0° C to +90° C



## Features

- Wide operation range especially for booster system
- Robust, Easy maintenance with direct couple motor to pump
- Available in booster parallel alternate both variable speed or fixed speed



## Split Case Pump

### **Applications**

- For water supply, boosting, transfer, distribution
- Power station
- Factories, Irrigation
- Fire fighting systems
- For civil and industrial applications.
- cooling and air-conditioning systems



## Split Case Pump

### Performance

- Capacity up to 30 - 900 m<sup>3</sup>/h.
- Head up to 15 - 160 m.
- suction dia DN 80 - DN 250, discharge dia DN 65 - DN 200
- Operating pressure 16 - 20 Bar
- Speed range 960 - 3600 rpm

### Feature

- Robust construction, easy for maintenance.
- horizontal or vertical shaft installation
- Double suction impeller will reduce NPSH and increase suction lift.
- long shaft design for gland packing and short shaft design for mech seal



## In line pump

### **Applications**

- For water supply, boosting, transfer, distribution
- For civil and industrial applications.
- cooling and air-conditioning systems
- Industrial applications

### **Performance**

- Capacity up to 1200 m<sup>3</sup>/h.
- Head up to 90 m.
- Rated motor power output 1.1 kW up to 75 kW.
- Available in 2 poles and 4 poles

### **Features**

- Wide operation range
- Single stage in-line circulation non-self priming Horizontal non-self priming centrifugal pump, attached with shaft electric motor
- Easy maintenance without having to remove pump body or pipeline discharge
- Available in SUS 304 and 316



# Solar Pump

## **Applications**

- Very usefull for remote area
- For water supply, transfer, distribution
- Realible water solution for area do not have electricity

## **Performance**

- Capacity up to 11 m<sup>3</sup>/h.
- Head up to 40 m.
- Rated motor power output 4 kW .

## **Features**

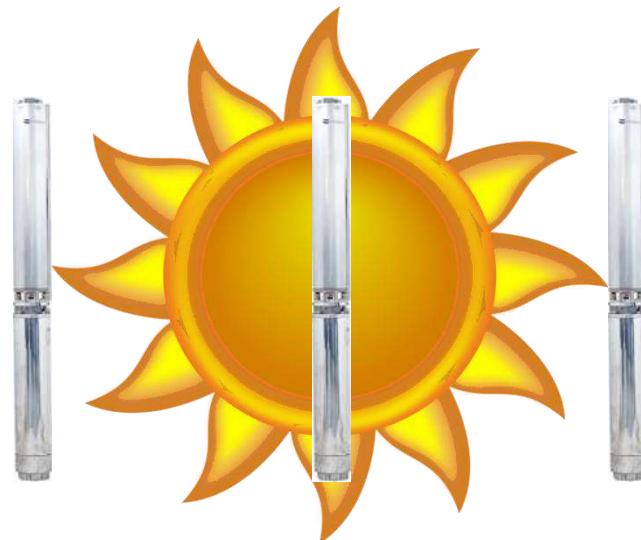
- Wide operation range
- Single stage in-line circulation non-self priming Horizontal non-self priming centrifugal pump, attached with shaft electric motor
- Easy maintenance without having to remove pump body or pipeline discharge
- Available in SUS 304 and 316



# Solar Powered Pump Program ready to use for AC- and DC- Voltage.

(up to 11 m<sup>3</sup>/h)

All what is needed are the SUN  
and Solar Panels to let the  
pump run and give water where  
needed.



# Solar Deep Well Pumps

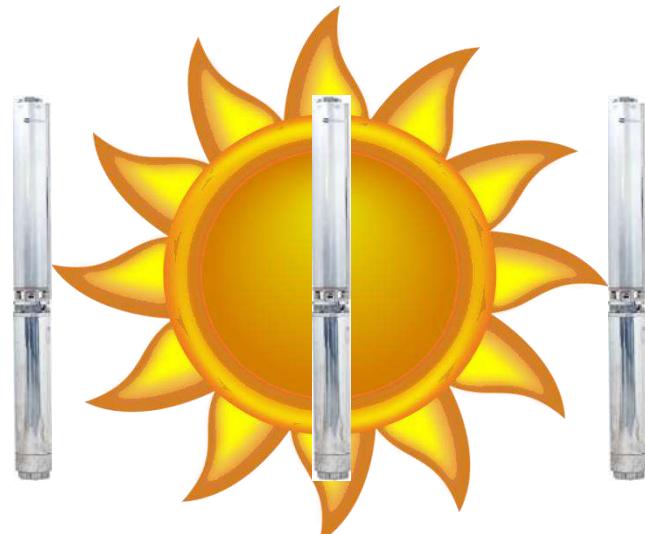
**All** wet parts from stainless steel AISI 304

**Complete** program up to 11 m<sup>3</sup>/h as  
centrifugal pump type or helenic rotor pump  
type for high efficiency.

**All** types with build in inverter and soft  
ware which will adjust the powering  
automatically to the available power  
source . (AC or DC)

**Max.** water temperature 40 degrees C.

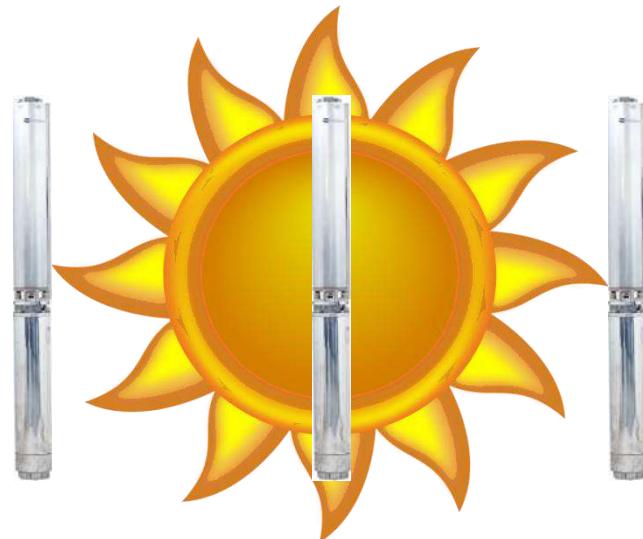
**Integrated** on board protection against  
voltage or motor overload and dry  
running



# Solar Deep Well Pumps

**No Sun?** With the standard build in Inverter for AC & DC the powering will be automatically adjusted to the available power source and can be direct connected to :

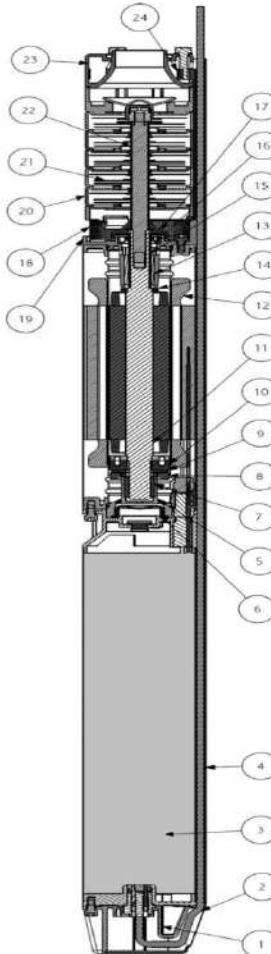
Battery  
Generator  
Wind turbine



# Solar Deep Well Pumps

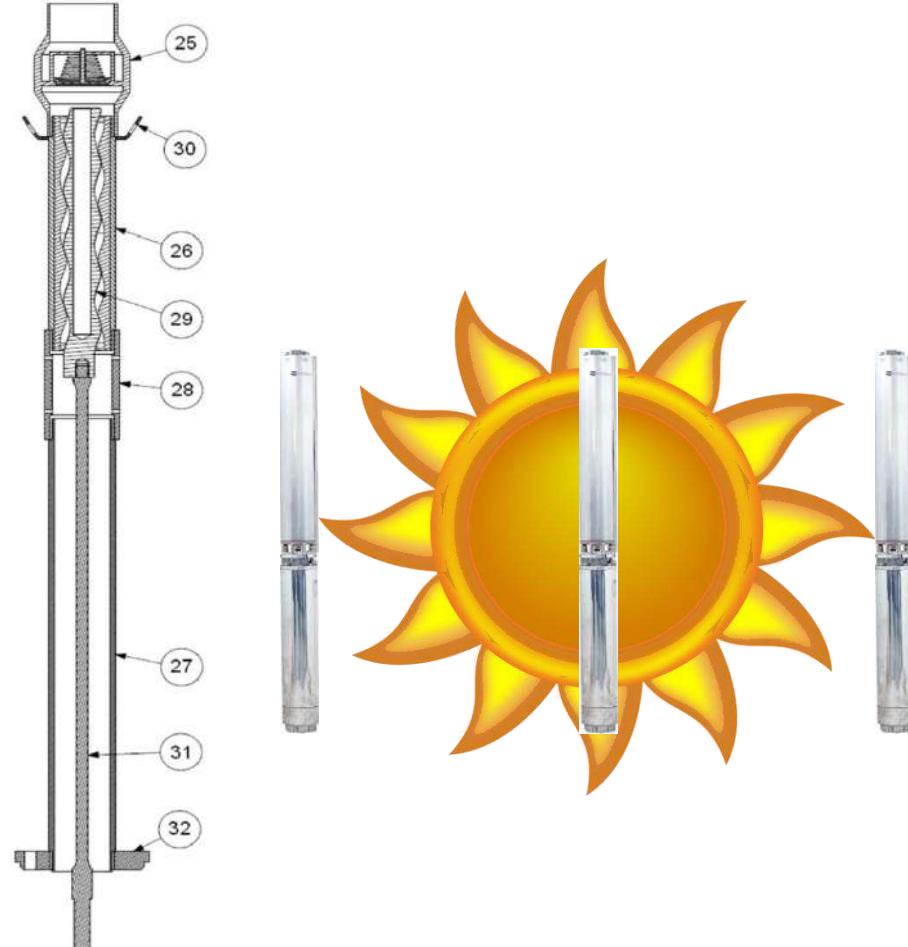
## Materials and construction

Type 4 HS



REF	DESCRIPTION	MATERIAL
1	Power supply bracket	AISI 304
2	Cable for drinking water applications	ACS-KTM-WRAS compliant
3	MINT: Electronic Integrated Module	
4	Cable guard	AISI 304
5	Lower thrust bearing	AISI 304
6	Rubber diaphragm	EPDM
7	Lower carbon bush	CTI25
8	Tilting disc	AISI 304
9	Pads	AISI420J
10	Carbon disc	CTI25
11	Shaft with rotor	AISI 431
12	Canned type stator	AISI 304
13	Upper carbon bush	CTI25
14	Upper thrust bearing	Teflon
15	Ceramized sleeve	AISI 304 + Ceramic
16	Lip seal	FKM
17	Rotating sandguard	NBR
18	Pump filter	AISI 304
19	Pump bracket	AISI 304
<b>Centrifugal pump</b>		
20	Diffusers	AISI 304
21	Impellers	AISI 304
22	Pump shaft	AISI 304
23	Discharge	AISI 304
24	Straps	AISI 304
<b>Helicoidal rotor pump</b>		
25	No-return valve	AISI 304
26	Helicoidal stator	EPDM + AISI 304
27	Supporting pipe	AISI 304
28	Junction	AISI 304
29	Helicoidal rotor	AISI 316 cromed
30	Safety hook	AISI 304
31	Flexible shaft	AISI 316
32	Pump adaptor	AISI 304

Type 4 HS-H



# Solar Deep Well Pumps



**ANAVALOS** AC/DC powered pumps are high quality EU branded and EU manufactured Deep Well Pumps which are standard complete and “ready to go” to provide water to save energy or in remote area's without power supply.



# Solar Pump

## **Applications**

- Very usefull for remote area
- For water supply, transfer, distribution
- Realible water solution for area do not have electricity

## **Performance**

- Capacity up to 11 m<sup>3</sup>/h.
- Head up to 40 m.
- Rated motor power output 4 kW .



# Intelligent controller and protector



## ● Suitable application range

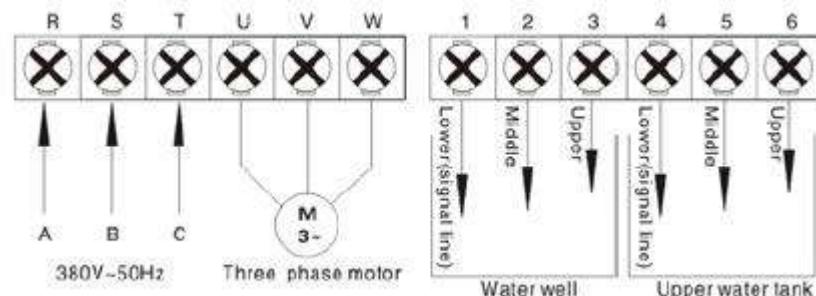
- Type of motor: three phase motor
- Motor power: 0.75-18.5kW
- Voltage: 380-415V
- Frequency: 50Hz

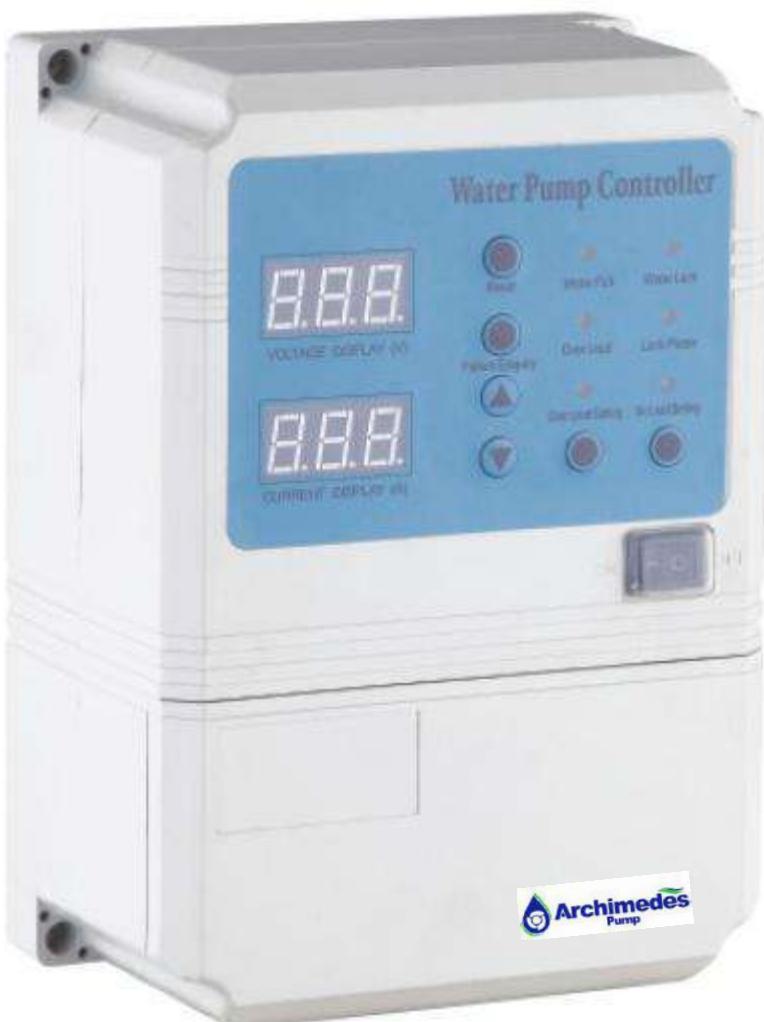
## ● Technical characters

- Manual/Auto-control
- Double liquid level auto-control
- Pulse electrode probe check

## ● Installation environment index

- Grade of protection: IP20
- Environment temperature: -25°C - +55°C
- Environment humidity (20-90)%RH





## • Product functions

- Protect against short circuit
- Protect against over current
- protect against open phase
- Protect against lightning strike
- Protect against dry-running
- Voltage-Current digital display

## • Technical index

- Action time of short circuit: <0.1sec.
- Action time of open phase: <2sec.
- Action time of over current: 5sec.
- Recovery time of over current: 30min.
- Action time of dry-running protection: 6sec.
- Recovery time of dry-running: 30min.
- Double liquid level transfer distance: >1000m

## Product range

- Available from 0.37 kW to 18.5 kW

## Terimakasih atas perhatiannya

Apabila ada pertanyaan seputar pompa, silakan menghubungi

email : [info@archimedes.co.id](mailto:info@archimedes.co.id)

telepon : 021 54377378

PT. Archimedes Global Pump

Kawasan Pusat Niaga Terpadu

Jl. Daan Mogot Raya KM 19.6, Blok FF No. 8Y.

Tangerang 15122, Indonesia

Phone : +62 54377378;

