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INNOVATIVE WATER TREATMENT AND WATER PUMPING SOLUTIONS





Norwa Africa was established with the purpose to provide reliable water treatment and water pumping solutions in Africa. We endeavor to address the water scarcity, the challenging water quality as well as the growing demand for green energy through solar solutions and water treatment machines.

Since its establishment, Norwa Africa has been on a journey, seeking solutions in water pumping, solar energy, water treatment for African communities and organisations. With the growing water scarcity, need for renewable energy, and the numerous water quality concerns in Africa, Norwa Africa dedicates itself to provide reliable water treatment solutions in the most professional approach, to uplift our communities

We are proud of our success and look to the future with enthusiasm, to grow with the needs of our customers, to transform communities and change lives.

Mission and vision

Mission

Norwa Africa aims to provide affordable and sustainable water treatment and water pumping solutions for communities across Africa.

Vision

Ensure there is provision of affordable water treatment machines, accessories, and solar pumping solutions in Africa

Core values

Expertise

Norwa Africa Engineers and Project Managers bring the highest available technical skills to find the best solutions in water treatment in every project we under-take.

Excellence

Norwa Africa aims for the highest standards of execution and delivery in everything we do.

Edge

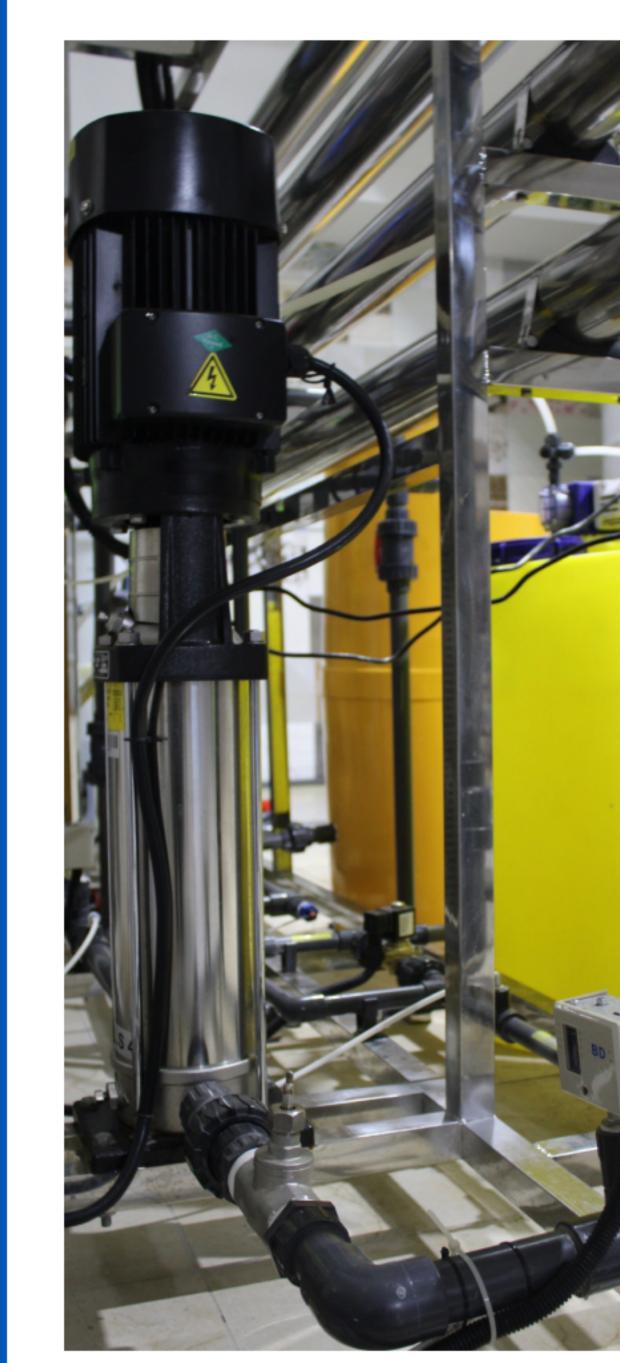
Norwa Africa stays on the cutting edge of innovation & technology in the water treatment industry



















WATER TREATMENT SOLUTIONS



<u>OUR SOLUTIONS</u>

Engineered and designed to meet your purified water quality needs based on raw water quality .We specialize in modern and conventional water treatment technology .The systems offered include;

Commercial/Industrial Reverse Osmosis Purification Systems

Membrane technology offers a reliable and efficient solution for treating water with high salinity .Our systems are designed to treat water for industrial and commercial application.

<u>Domestic Reverse Osmosis Purification</u> <u>Systems</u>

Norwa Africa domestic reverse osmosis purifier offers a compact solution suitable for purifying saline water for domestic use .Our membrane purification systems offers a cost effective solution for domestic safe water needs.

Pure Water Purification Systems

Our pure water purifiers are designed with conventional sand and carbon filters. The system is suitable for purifying water with high sediment impurities with the option of ultraviolet purifier UV for bacteriological control.

<u>Ultrafiltration Water Purification</u> <u>Systems.</u>

A low pressure membrane treatment technology designed for fine filtration that cannot be achieved by conventional sediment filtration method .Norwa Africa ultrafiltration systems can be used independently or integrated with other treatment systems such as reverse osmosis as pretreatment option

UV Purification

UV purification technology offers a chemical free control of bacteriological contaminants in water.

Water Softeners

Hard water is a common challenge for domestic and industrial water .Norwa Africa softening units are suitable for controlling hardness caused by high concentration of calcium and magnesium ions that causes scaling in plumbing appliances .

Our Aim

We are committed to offering water treatment solutions for your domestic, industrial and commercial water needs .Our commitment is to provide you with quality water from different sources.



WATER PUMPING SOLUTIONS



Domestic Booster Pumps

THESE ARE PUMPS SUITABLE FOR PUMPING WATER IN DOMESTIC APPLICATION WITH OPTIONS FOR SURFACE CENTRIFUGAL PUMPS USED FOR INLINE PRESSURE BOOSTING AND SUBMERSIBLE PUMPS THAT CAN BE USED FOR WATER TRANSFER FROM UNDERGROUND TANKS.

Shallow Well Pumps

WE OFFER A WIDE RANGE OF SUBMERSIBLE WELL PUMPS SUITABLE FOR WELLS WITH DEPTHS OF UP TO 100 METERS WITH AC AND DC OPTIONS. THE PUMPS OFFER HIGH PERFORMANCE EFFICIENCY WITH IMPELLERS DESIGNED TO PUMP WATER WITH HIGH SAND CONTENT.

Booster Sets

SUITABLE FOR DOMESTIC AND COMMERCIAL APPLICATION WHERE MORE THAN ONE PUMP SYSTEM IS REQUIRED. WE OFFER CUSTOMIZED BOOSTER SETS WITH AUTOMATIC CONTROLS WHICH ENSURE CONTINUOUS WATER SUPPLY AND IMPROVED PUMP PERFORMANCE.

Horizontal Multistage Pumps

FOR APPLICATION WHERE HIGH PRESSURE AND FLOW IS REQUIRED. WE OFFER HORIZONTAL MULTISTAGE PUMPS AS SUBSTITUTE FOR THE SURFACE CENTRIFUGAL PUMPS, THE MULTISTAGE PUMPS ARE SUITABLE FOR HEAVY DUTY APPLICATION AND ARE RECOMMENDED FOR INDUSTRIAL BOOSTER SETS.

Drainage Pumps

OUR SUBMERSIBLE DRAINAGE PUMPS ARE DESIGNED TO DRAIN WASTE WATER FROM BASEMENT AND OTHER AREAS THAT ARE PRONE TO FLOODING .THEIR IMPELLERS CAN WITHSTAND WATER WITH HIGH IMPURITIES ENSURING EFFICIENT PERFORMANCE.

Vertical Multistage Pump

THESE ARE HIGH PERFORMANCE PUMPS WITH MULTIPLE IMPELLERS SUITABLE IN AREAS WHERE CONTINUOUS DUTY IS REQUIRED SUCH AS DOMESTIC PUMPING, IRRIGATION, INDUSTRIAL AND CIVIL APPLICATION.

Circulator Pumps

FOR CLOSED CIRCUIT SYSTEMS SOLAR WATER HEATERS AND MACHINES FOR DOMESTIC AND INDUSTRIAL APPLICATION, THE PUMPS CAN HANDLE COLD AND HOT WATER.

Pump Controllers

1.SINGLE PUMP CONTROLLER: THESE ARE SUITABLE FOR AUTOMATION OF A SINGLE PUMP UNIT.

2.DUPLEX PUMP CONTROLLER: SUITABLE FOR BOOSTER SET AND TWO PUMPS' SYSTEMS WITH DUTY/ASSIST/ STANDBY CONFIGURATION.

3.PRESSCONTROL/AUTOPRESS

4.PRESSURE SWITCH: CONTROL PUMP ON AND OFF OPERATION BASED ON PRESSURE DEMAND

5.FLOAT SWITCH: USED TO PREVENT PUMP DRY RUNNING AND PUMP AUTOMATION FOR TANK SET UP.

6.PRESSURE VESSELS: FOR PUMP AUTOMATION WITH PRESET PRESSURE, IMPROVES PUMP PERFORMANCE AND EFFICIENCY.

7.CONVENTIONAL PANELS











SOLAR REVERSE OSMOSIS UNITS



Reverse osmosis technology is used to purify water with high levels of dissolved solids (sodium ,chloride, fluoride , sulphates).

The system consists of feed pumps, high pressure pumps and dosing pumps for chemical dosing.

Due to the pressure requirement required for reverse osmosis water treatment, the system requires power supply to operate.

For communities without grid connection, using solar power is a reliable and efficient way to operate the desalination units.

Due to the high and maintenance cost of batteries, the units are designed to operate without batteries.

Component	Specification	Function
Feed Pump	Based on system flow rate (0.75-1kW)	Based on system flow rate (0.75-1kW)
High Pressure Pump	1.5-2.2kW	Provides required pressure to pump water through the reverse osmosis (RO) membranes
Media Pre-Treatment	Based on raw water (Unit comes with sand and carbon filter media as basic pre-treatment)	Removal suspended solids in the water, chlorine ,tastes and odours
Inline Klorman Chlorination unit	Calcium hypochlorite cartridge	Microbial control
Low Energy Reverse Osmosis Membranes	Operating Pressure 10 Bar , TDS <2000PPM	Filtration of dissolved solids
Solar Array	Based on the power rating of the pumps.	Provide energy required to run the pumps.
Inverter	Based on the pump power rating	Convert DC to AC power.



SOLAR WATER PUMPING SOLUTIONS

SOLAR SOLUTIONS

At Norwa Africa, We believe that solar energy is the way to go.
It saves you on your energy cost and helps you in saving the planet by using renewable and affordable energy

SOLAR WATER PUMPING

We offer pumping solutions for a wide range of applications while working together with our clients in designing the most efficient pumping system .Our pumps are affordable and durable with a wide selection of pump brands.



BOREHOLE EQUIPPING SOLUTIONS

Borehole Pumping Solutions

When equipping your borehole, you need quality pump, controllers and other accessories .Norwa Africa focuses on designing the right borehole solution with option of grid powered, solar or hybrid powered borehole water pumping system.

Borehole Pump Controllers

Norwa Africa borehole pump controllers are designed to control all borehole pumps with effective motor protection with the option of conventional panel mount controllers and digital controllers.

Borehole Pump Power Cables

We offer a wide range of quality cable for borehole installation. While designing for your borehole installation, we ensure that we get the right cable size based on the motor and borehole parameters.

Borehole Covers

The covers come with access points for drop cables, outlet pipe access, tee and union for non-return valve connection .Our covers can be installed for borehole sizes of 4", 6" and 8".

COMMUNITY WATER TREATMENT SOLUTIONS







AQUABLOCK

0.01 microns UF unit, 0.3-2 bar operating pressure, Carbon cartridge filter unit, Klorman inline chlorination unit.

AQUATOWER GRAVITY

Solar feed pump, 0.3-2 bar operating pressure, Can integrate fluoride removal cartridges.

AQUABLOCK -1500LPH

Component	Specification	Function
Ultrafiltration (UF) Filter	Precision 0.01 micron	Removal of microbial pathogens
Carbon Filter	10" KDF activated carbon filter	Removal of tastes ,odors, chlorine, lead, mercury, iron, and hydrogen sulfide.
Inline Klorman chlorination unit or inline dosing pump	Klorman chlorine cartridges or sodium hypochlorite dosing	Microbial control
Purified water tank	500 Liters	Storage of treated water.
Feed Pump	DC/AC	To provide required pressure for the filtration unit (0.3 -2 bar)

AQUATOWER: GRAVITY -1000LPH

Component	Specification	Function
Elevated tower fabricated using aluminum or mild steel	>0.5 meters	To provide gravitational pressure needed for water to flow through the filtration unit.
Ultrafiltration (UF) Filter	Precision 0.01 micron	Removal of microbial pathogens.
Carbon Filter	10" KDF activated carbon filter	Removal of tastes ,odors, chlorine, lead, mercury, iron, and hydrogen sulfide.
Inline Klorman Chlorination unit	Calcium hypochlorite cartridge	Microbial control.

CHEMICALS AND MEDIA















Norwa Africa is a leader in the supply of specialised water treatment chemicals that can be used in reverse osmosis system, swimming pools & other water treatment applications

OUR FILTER MEDIA SOLUTIONS

Get enviromentally friendly media made from the best quality materials for a wide range of applications in water treatment, water softening and swimming pool applications



ACCESSORIES

We only believe in quality and geniune accessories for water treatment at Norwa Africa. This leads to increased lifespan and effeiciency of your water purification system.