



**L I M I T E D**

**MECKOW AQUAPUR-For Nigeria.....Clean Water, Fresh Hope**

# MECHANISM OF THE MECKOW AQUAPUR WATER PURIFICATION UNIT

**The unit consists of the following major components:**

- A. The water inlet valve
- B. The two primary string filters
- C. The chlorine metering unit
- D. Pipe inlet to the ball valve
- E. The ball valve
- F. Outlet pipe to the main filter
- G. The main filter compartment
- I. The 680 litres storage tank
- J. The outlet tap for clean, potable chlorinated water
- K. The outlet tap for potable de-chlorinated water

Pictorial representation of each compartment is represented on the following slides , labelled with their respective names

Tap for inlet of contaminated water

680 litre storage tank



outlet tap C

outlet tap B

outlet tap A

button to bleed air from string filter

button to bleed air from string filter

Primary filter 10 micron

Primary filter 25 micron





The chlorine  
metering unit

connecting pipe  
to the ball valve  
box

connecting pipe  
From the ball valve  
To the main filter  
chamber

tap inlet to  
the main filter  
chamber

tap inlet to the  
activated  
carbon chamber



The ball valve  
box

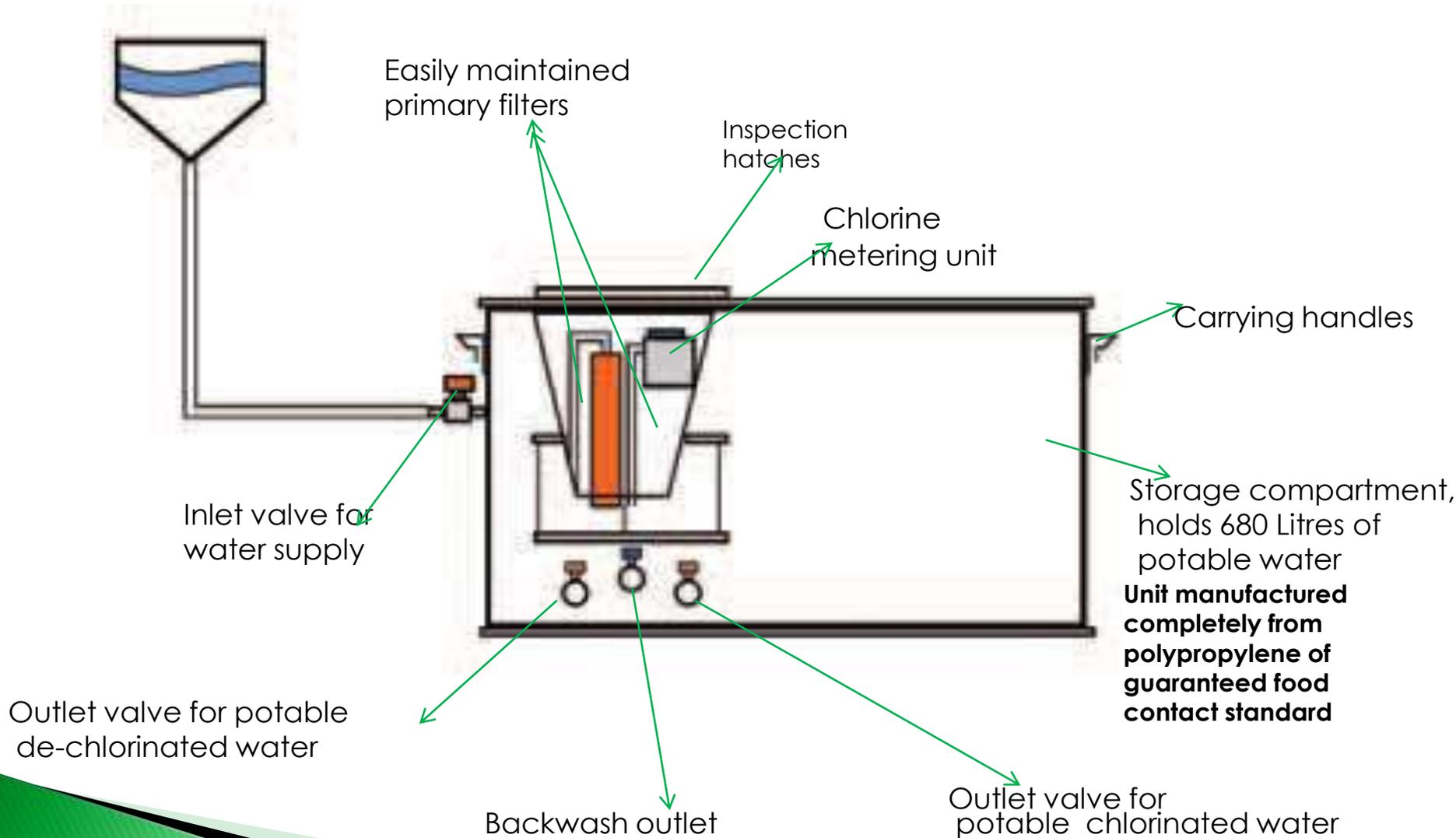


The main filter chamber

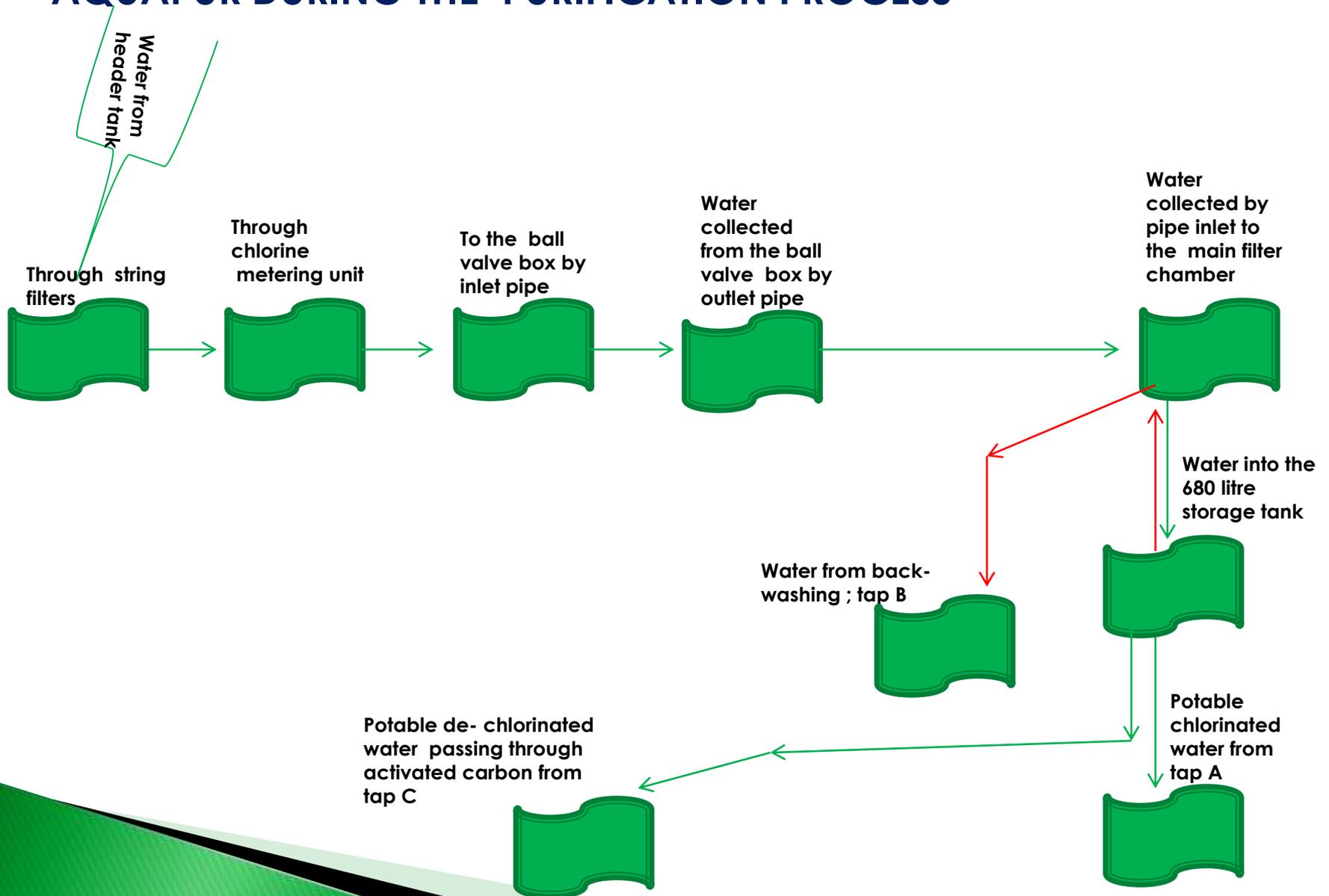
The activated Carbon Chamber

# HOW IT WORKS

Requires no electrical power.  
Operates on 1 Metre head of water



# PROCESS CHART FLOW OF WATER THROUGH THE MECKOW AQUAPUR DURING THE PURIFICATION PROCESS



## HOW IT WORKS CONTD....

1. Water flows in from the header tank through the inlet valve via gravity , **no use of electricity**
2. Purification begins with water going through the string filters, large particles are taken care of at 25 micron and 10 micron filters respectively
3. From the string filters, it flows into the chlorine metering unit which is automatically set at 2 parts per million, hence there is no need for adjustment of the unit, at this stage ALL microbes are taken care of
4. From there, it flows through the inlet pipe to the ball valve box
5. At that point, the water is collected by the pipe that leads into the main filter chamber
6. The main filter chamber contains a man made filter medium called the Aquapur Filter Media (AFM) made by NANO-TECHNOLOGY, getting rid of ALL heavy metals , arsenic , contaminants and impurities like odour, colours etc.
7. The main filter is kept clean by a process of backwashing using the clean water from the 680litres storage tank
8. Chlorinated potable water for storage can be obtained from the outlet tap labelled tap A on slide 3 above
9. While de-chlorinated, polished potable water can be obtained from outlet tap labelled C on slide 3 above
10. Outlet tap B is the tap used for backwashing, hence it is NOT safe for drinking

# Benefits

Meckow Aquapur would process water from almost any source, including surface source (rivers, lake, pond, reservoir) or ground source (wells, borehole).

- It requires **NO ELECTRICITY** for its purification process.
- It produces a constant supply of potable water sufficient for a community of up to 2,000 people.
- It is capable of preventing & removing water-borne diseases, bacteria and parasites from sourced water.
- Its components are made from material with a working life span of at least 25 years
- It is easily transported, installed and requires minimal training to operate.
- Its consumable items are occasionally replaced and available locally.
- Set-up time for each unit is minimal.
- It aids capacity building using local labour and materials.



**We need change in Nigeria,**

**Let's start by providing**

**SAFE DRINKING WATER!**

**THANK YOU**