20 Liter Plus BleachMaker by WaterStep

The 20 Liter Plus BleachMaker is similar to the 5 Liter BleachMaker. It will make between 20 and 25 liters of 5000 ppm (or 0.5 %) bleach. The user must supply salt, a container to make the bleach in and a power receptacle. A timer and an AC to DC power converter is provided.

The user of the 20 Plus Liter BleachMaker must be familiar with the 5 Liter BleachMaker. Testing and use of the Bleach is explained in the instructions for the 5 Liter BleachMaker, attached. Read the precautions before making bleach.

WaterStep Provides:

- → Power Supply
- → Power Cord
- → Timer
- → Funnel
- → Safety Glasses
- → 1 Liter Measuring Cup
- → Three 1 Milliliter Syringes
- → Test Kit
- → Bleach Generator Electrode Package
- → Set of Measuring Spoons and Cups

Needed Parts and Material:

→ A 20 liter or a 25 liter plastic container

IMPORTANT: If an open container is

used, an additional closed container (or

containers) will be needed to store the

bleach.



→ Water - Enough to fill the container and 1 liter for testing.

- → Salt As much as 1.8 kilograms, depending on the size of the container.
- → Power 110-120 or 220-240 volt outlet.

Determine the size of the container:

The amount of salt and operating time depend on the size of the container. Most containers will have the size printed on a label or etched on the bottom. Determine the size of your container and clean the container thoroughly before making bleach the first time.

Determine the amount of salt and run time:

- → 20 LITER CONTAINER: Use 1300 milliliters (1600 grams) salt and operate for 8 hours.
- → 25 LITER CONTAINER: Use 1500 milliliters (1800 grams) of salt and operate for 10 hours.

Bleach Production - How to make the Bleach:

- 1. Put on the safety glasses.
- 2. Using the funnel, fill the container approximately ½ or more full of water.
- Measure one half of the salt needed into the 1000 milliliter cup and pour it into the container. Repeat this step twice.

EXAMPLE: For a 25 liter container, 1500 milliliters of salt are required. Fill the 1 liter cup to the 750 line. Using the funnel, pour the salt into the container. Fill the measuring cup to the 750 milliliter line a second time and again pour it into the container.



= 1500 mL

4. Screw on the cap and shake the jerrycan vigorously to dissolve all the salt. If you are using an open container, use a stick or pour the contents back and forth to another container of the same size.

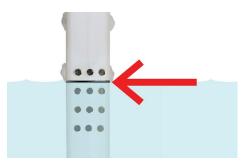
IMPORTANT: Coarse salt will take more effort and time (as much as 5 minutes) to dissolve. Check the bottom of the container to make sure that all the salt is dissolved.

- 5. Fill the container completely full with water.
- Clip the generator electrode package on the container, with the clamp resting on the top of the container as shown in the picture.





7. Add more water or remove some of the salt water to get the vent holes covered as shown in the picture.

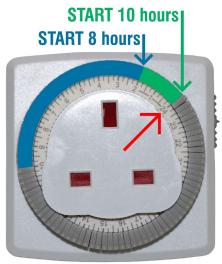


- 8. Connect the BleachMaker as follows:
 - a. Plug the power cord into the power supply.
 - b. Plug the timer into a 110-120 or 220-240 volt receptacle, and then plug the other end of the power cord into the timer.
 - c. Connect the BleachMaker's red clamp to the power supply outlet block lug with the red washer and the black clamp on the black washer lug.



- 9. Set the timer as follows:
 - a. For 8 hours (20 liter container) rotate the wheel on the front of the timer clockwise until the RED arrow is aligned with the first BLUE mark.
 - b. For 10 hours (25 liter container) rotate the wheel until the RED arrow is aligned with the first GREEN mark.
 - c. You will feel or hear a click, which indicates the BleachMaker has started.

NOTE: The timer wheel rotates with time. This wheel has pins; when pushed in, the power is on, and when pulled out, the power is off. The pins have been pre-set for 8 and 10 hours.



10. Confirm that the unit is making bleach.

NOTE: You should see bubbles or hear a bubbling sound or smell chlorine.



11. The unit will stop after the required time. Remove the bleach generator from the container. Rinse the bleach generator off with clean water.

NOTE: If power is interrupted, the timer will stop and start again when power is restored. It will power the BleachMaker for the number of hours it was set for.

- 12. Unplug the timer from the receptacle.

 NOTE: If the timer is not unplugged, it will start again after the timer completes a 24 hours cycle.
- 13. If the container has a cap, put it on for storing the bleach. If an open container was used to make the bleach, transfer the bleach into a container (or containers) with caps.

 IMPORTANT: The bleach will evaporate quickly if the container is not tightly closed.

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US PATENT 10487409 B1

<u>Click here</u> or visit https://waterstep.org/wp-content/upl oads/2018/03/Waterstep-Bleach-Maker-Manual.pdf for the 5 Liter BleachMaker Manual, Instructions for Testing the Bleach, and Using the Bleach.

<u>Click here</u> or visit waterstep.org for more information about WaterStep.

7/12/22

