



# GLOBAL WATER GROUP

DALLAS, TEXAS U.S.A.

MANUFACTURER OF THE WORLD'S BEST  
WATER PURIFICATION AND WASTE WATER EQUIPMENT

## Fresh Water Purification for Municipal Systems

Global's Unique Modular Platform Systems



The Old Way

The New Way →



# Explanation of Cleaning Water

Getting clean water is not really rocket science. There are three basic areas that have to be cleaned to get good, pure water.

1. **You've got to remove the parasites. Parasites include *Giardia* and *Cryptosporidium*. *Cryptosporidium* is referred to as an oocyst and it is present in over 88% of all source water in the U.S. Guaranteed it is all over the earth. Crypto creates a flu-like symptom and is very dangerous to anyone with a weak immune system.**
2. **You've got to get rid of the hazardous chemicals; hazardous metals such as lead and mercury; insecticides, pesticides, radon, chlorine, etc. In this process you also get rid of bad taste and odor.**
3. **You need to kill the bacteria and viruses.**

Removing parasites, in requirement one, is no magic. This requires filtering down to one (1) micron. At one micron you remove those parasitic cysts. Unfortunately, most municipal systems don't remove the parasites, and probably can't. If they filtered down to one micron their systems would slow to a crawl and not provide the water we consume. In fact, the recent Safe Drinking Water Act removed the requirement for eliminating *Cryptosporidium* because it would cause almost all of the municipal systems to fail the Act. Supposedly, this requirement is scheduled for sometime in the future.

## **All of Global's systems filter to one micron.**

To reduce or eliminate hazardous chemicals below US-EPA or International-EPA standards, *Global Water Group* uses a proprietary formula of multi-media that grab and hold those elements. Most municipal systems use various sand filtration and flocculation methods. Most water filtering systems use activated carbon; some use another media in combination. Carbon only goes so far in reducing hazards. Carbon is great for removing chlorine, bad taste and odor... and that is what sells most consumers. No one has the formulation that Global created over ten years ago that far exceeds those EPA standards.

To kill bacteria and viruses municipal systems use chlorine. Chlorine kills most bacteria and viruses when dosed heavy enough and it puts most in a holding state if it doesn't kill them. Quite often you can smell and taste the over-chlorination by municipal systems to accomplish this, making water sometimes undrinkable. Unfortunately, the World Health Organization for years has been telling the world to STOP using chlorine. As was confirmed in a front page article by the Dallas Morning News just this past August 6, 2000, while chlorine has benefits of killing viruses and bacteria, it is probably killing us in other ways by creating carcinogens and sending them down to the drinking public. It is unfortunate because, for the most part, there is no alternative for municipalities, Third World Countries, etc.

Global Water, on the other hand uses several other methods in its systems to kill bacteria and viruses. The primary process that really does kill them is ultra-violet. An alternative is ozonation, and in large systems we might use that process.

The W.H.O. stated that most systems in the world utilize *one* of the three concepts to purify water. Some systems use two methods. And a very few use two and half concepts. Hardly any municipal systems actually use all three necessary approaches. **GLOBAL USES ALL THREE!**

**Global uses all three concepts to make their water better than any water you could buy in a bottle, in the supermarket or in a fine restaurant.**

**Now that covers cleaning water. Fresh water. Contaminated water.**

**Global systems take out the bad stuff and leave the good stuff.**

**Sometimes, however, there is some good stuff in overabundance that needs to be removed; and many times there is bad stuff in excess that a standard system can't fully remove.**

For example: an oil spill. The *basic* Global system couldn't clean an oil spill. But, by placing a separator system in front of the Global unit, we would separate out the oil concentrate in one direction and take the remaining "bad drinking water" into a substantially sized Global fresh water system and clean it up to potability. Residual oil can be pulled out, just not a spill.

If there were too much iron or magnesium or sulphur (etc.) we would take the same approach. Put an attachment system on the front end of the Global unit to precipitate the excess material-metal; pull the excess material out through a separate pre-filter process; and then take the remaining "bad drinking water" into a Global fresh water system and clean it up to potability.

In this same manner we can take effluent from a wastewater system, remove the suspended solids and recycle them back to the wastewater system, and then process the effluent back to potability. This is a true recycled water process.

Salt is another problem product that the normal Global unit would not remove; because salt is good... just not too much. So for higher TDS (total dissolved solids), brackish water or seawater Global would add a membrane system (a reverse osmosis system) to the front of the Global process. Those membranes would remove the salt and the remaining Global system would provide the best tasting, purest potable water.

All of Global's military and disaster relief equipment, as well as total home systems, follow the complete purification process of removing parasites with 1-micron filtration; removing hazardous chemicals, insecticides, pesticides, radon, chlorine, bad taste and odor with its proprietary multi-media filtration process; and killing the bacteria and viruses with ultra-violet.



Fresh water processing; FRAME ASSEMBLY suitable for lifting, placing on flatbed or ground; filter assembly: pre-filtering for silt, 5-Micron and 1-Micron for parasite removal; Global's LS3-Multi-Media system for removal of hazardous chemicals; Ultra-Violet assembly for killing bacteria and viruses; chlorine injection system for protection for holding water and redundant system for bacteria and viruses; floatation assembly for pulling source water; pressure gauges and flow meter with Global's electronic control box.

**Fresh water Processing Systems**

<u>Model #</u>	<u>GPM</u>	<u>L/min</u>	<u>GPH</u>	<u>L/hr</u>	<u>GPD</u>	<u>L/day</u>
LS3-10GPM-Platform	10	38	600	2,268	14,400	54,432
LS3-15GPM-Platform	15	57	900	3,402	21,600	81,648
LS3-20GPM-Platform	20	76	1,200	4,536	28,800	108,864
LS3-25GPM-Platform	25	95	1,500	5,670	36,000	136,080
LS3-30GPM-Platform	30	113	1,800	6,804	46,200	174,636
LS3-35GPM-Platform	35	132	2,100	7,938	50,400	190,512
LS3-40GPM-Platform	40	151	2,400	9,072	57,600	217,728
LS3-50GPM-Platform	50	189	3,000	11,340	72,000	272,160
LS3-60GPM-Platform	60	227	3,600	13,608	86,400	326,592
LS3-70GPM-Platform	70	265	4,200	15,876	100,800	381,024
LS3-80GPM-Platform	80	302	4,800	18,144	115,200	435,456
LS3-90GPM-Platform	90	340	5,400	20,412	129,600	489,888
LS3-100GPM-Platform	100	378	6,000	22,680	144,000	544,320
LS3-140GPM-Platform	140	529	8,400	31,752	201,600	762,048
LS3-174GPM-Platform	174	658	10,440	39,463	250,560	947,117
LS3-184GPM-Platform	184	694	11,023	41,667	264,550	1,000,000



**System Options: (Quoted Separately)**

**Trailer                    All Weather Housing    Generator                    DC power and Solar**  
**Dolly Assembly    Anchor Tie-Down            Self Cleaning UV        Sensor & Alarms**

ESTIMATED MAINTENANCE:        **IF THE DAILY USAGE IS:**  
24 HOURS                    or                    10 HOURS

**FILTER ASSEMBLY  
CHANGE**

Pre-filters	Daily	2-Days (+ or -)
5-Micron	4-Days	Weekly (or less)
1-Micron	10-Days	Monthly
MEDIA PODS	180-Days	12-Months
PUMP	3 - 5 Years (1-YR Warranty)	

**ULTRA VIOLET ASSEMBLY:**

UV Bulb	Annually	18-Months (or more)
UV Sleeve	Annually	18-Months (or more)

