

AQUA LS mobile drinking water unit for water with low salinity

The drinking water system for superficial fresh water or well water AQUA LS type is a containerised compact unit able to solve both permanent drinking water shortage problems and to provide for temporary needs due to natural disasters or emergencies.

The unit is capable of removing from water various contaminations due to suspended solids, organic and chemical micro pollutants, bacteria and make it suitable for human consumption, according to the drinking water parameters guidelines set by WHO.

DESCRIPTION AND APPLICATION PROCESS

The unit is composed mainly of one or more 20' and/or 40' containerised modules that will be, time by time, tropicalized, insulated and conditioned according to the environment and the working condition.

Time by time the unit could be equipped with an autonomous power generator unit, automatization and computerized control of the process.

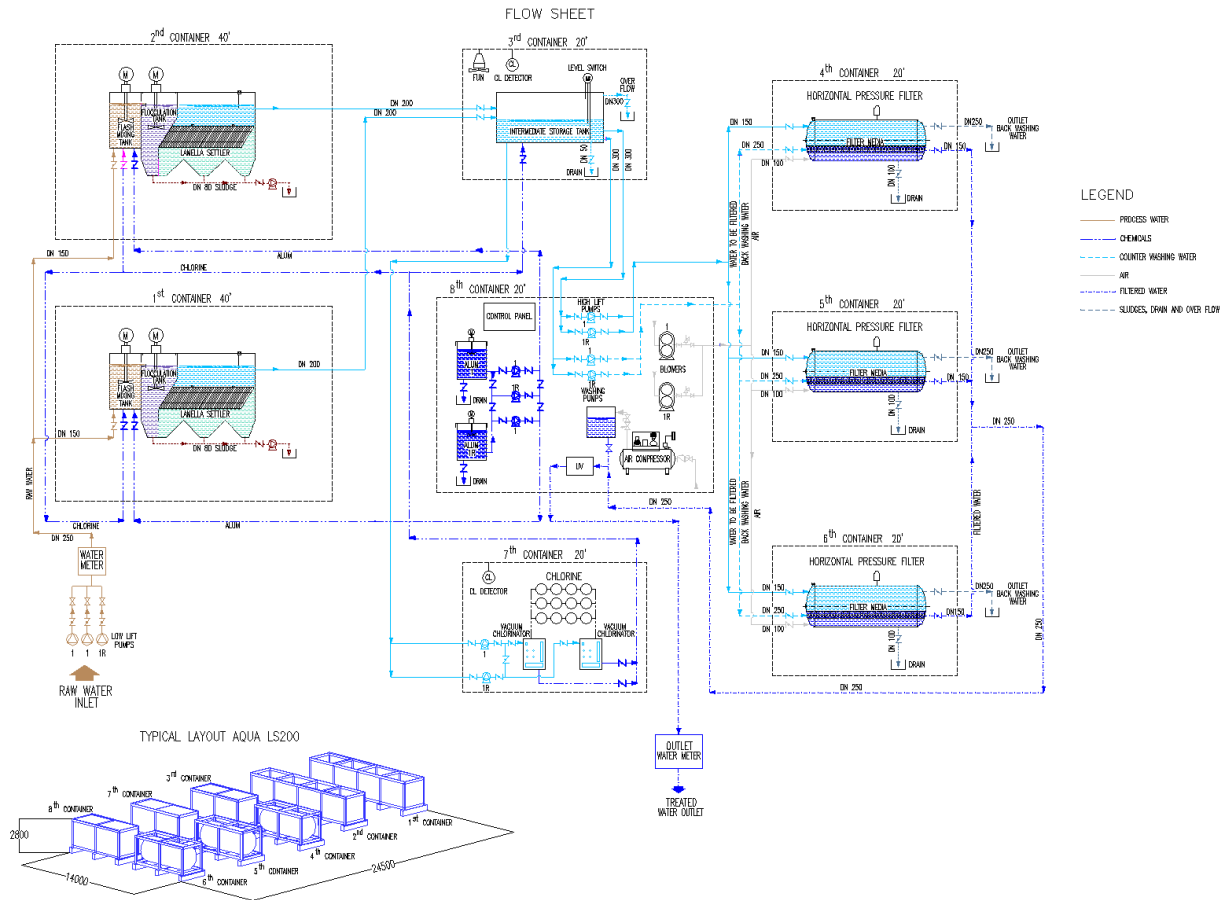
The turbid water, drawn from the river and/or lake by motor pumps is pumped in the first chemical conditioning and mixing compartment, then by gravity passes in the second flocculation compartment and the following compartment with lamella settling. Raw water, coming from wells and/or lakes, having low turbidity or with most of suspended

solids being removed in the treatment previously described, is stored in an intermediate disinfections and storing tank. The storing is able to allow a suitable contact time for disinfections and enough storing volume for filters washing. Disinfected water, by motor pump, is pumped in one or more sand and/or activated carbon filters, for removing on the sand bed residual suspended solids and on the activated carbon bed organic micro pollutants and chlorine. The system is always equipped with units for storing and dosing chemicals, automatic filters washing and UV system for removing bacteria contamination. After UV treatment will be available water complying with the parameter set by WHO.

Main components of the process

- MOTOR PUMP FOR RAW WATER DRAWING;
- CHEMICAL CONDITIONING;
- LAMELLA SETTLING;
- INTERMEDIATE SETTLING AND DISINFECTIONS;
- INTERMEDIATE LIFTING;
- FILTRATION WITH SAND AND ACTIVATED CARBON;
- BACTERIA REMOVAL BY UV.





TYPE	MAIN FEATURES	UNIT	DIMENSIONAL DATA				
AQUA LS	MODEL		010	030	050	080	200
	FLOW RATE	m ³ /h	10	30	50	80	200
	FLOW RATE	m ³ /d	220	700	1100	1800	4600
	20°CONTAINER WITHOUT FLOCCULATION	n°	1	1	2	3	6
	20°CONTAINER WITH FLOCCULATION	n°	1	2	3	3	6
	40°CONTAINER WITH FLOCCULATION	n°	0	0	0	1	2
	TOTAL CONTAINER WITH FLOCCULATION	n°	1	2	3	4	8
	POWER SUPPLY	kW	8	20	25	45	95

