



## AQUAMEM WATER PURIFICATION UNITS ULTRAFILTRATION



- EASY TO INSTALL
- EASY TO USE
- ECONOMICAL WITH FEW MAINTENANCE
- COMPACT AND LIGHT
- MODULAR TO CHOOSE THE PRODUCTION FLOW

### AN EFFICIENT TREATMENT

**CLARIFICATION AND DISINFECTION IN ONE STEP** : Ultrafiltration removes suspended solids up to colloids : Mineral and organic particles, Turbidity, SDI, Colloids. UF removes all the micro-organisms (Algae, Cryptosporidium, Giardia, Bacteria) and UF removes Viruses. The minerals, useful for the body, are preserved.

### MULTIPLE APPLICATIONS

#### FROM DOMESTIC NEEDS ...

houses  
hotels  
camps (army, camping ...)

#### ... TO INDUSTRY REQUIREMENTS

pharmaceutics, cosmetics  
hospitals  
food industry  
electronics

## AQUAMEM RANGE PROCESS

Aquamem ultrafiltration units work as follows :

The raw water enters the unit and is pre filtered for the removal of all particles greater than 200 microns in size. Feed water will then enter the hollow fiber membrane modules. The modules are working in parallel and arranged in one or several lines depending on the produced flow. Feed water passes from the outside diameter of the hollow fiber membrane through the porous wall of the membrane as filtrate . The membrane pore structure restricts passage of particulate, microbial and virus contaminants greater than 0.01 micron. Normal operating transmembrane pressure (TMP) is between 0.3 - 1.0 bar. Filtrate is collected in a tank which is used as a storage for backwash and treated water consumption.

Therefore, by simply switching valves, the ultrafiltration modules are backwashed, the number of cycles is depending of the quality of the raw water. The backwash cycle duration for one line is approximately 30 seconds and occurs at regular intervals (60 minutes is typical). The treated water will flow through the membranes from the inside to the outside of the fiber. An addition of chlorine (5 ppm) is done during this operation for a better washing efficiency using a proportional dosing system.

When modules are more dirty, one can proceed to a washing with soda added to chlorine. Each modules line is equipped with a valve, allowing the backwash to be done successively line per line. The 3 way valves are automatically controlled for the automatic version. Moreover, for the automatic version of Aquamem units, a feeding pump and a raw water tank are provided.

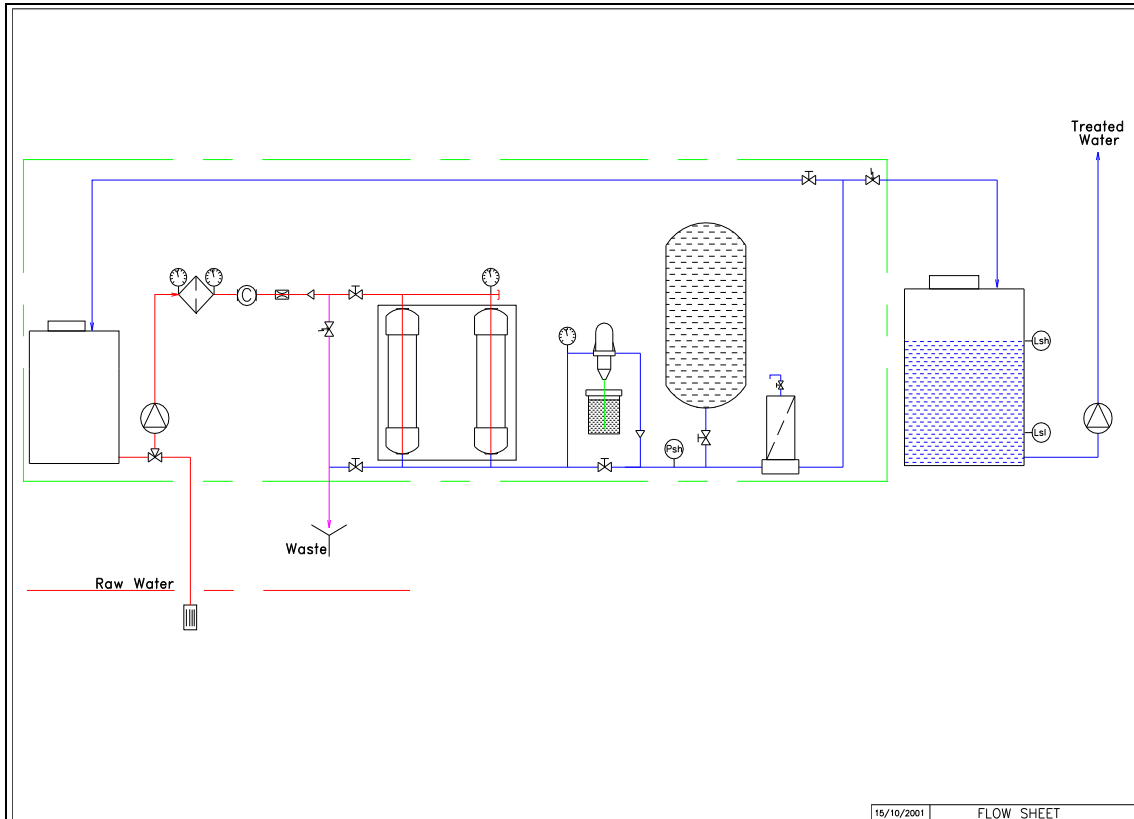
The complete unit is mounted on a compact and robust stainless metal skid.

For the automatic version, electric power supply is 220 volts/ 50 Hz, installed power varies from 650 watts to 1200 watts depending on the system size.

**The quality of clarification and disinfection is independent of the exploitation conditions** : pressure, raw water quality, temperature, level of fouling.

**The routine maintenance** is reduced to cleaning the pre filter thanks to a brush (frequency from a week to several months), filling the chlorine tank for backwash and cleaning the ultrafiltration modules. The products used for these cleanings are bleach, caustic soda and eventually oxalic acid.

## AQUAMEM RANGE PID



**AQUAMEM RANGE – STANDARD UNITS**

	<p>TYPE :</p>	<p>AQUAMEM-4</p>							
<p>Nb of modules UF100L</p>	<p>4</p>	<p>AQUAMEM-4</p>	<p>4</p>	<p>6</p>	<p>8</p>	<p>12</p>	<p>16</p>	<p>18</p>	<p>24</p>
<p>Number of lines:</p>	<p>1</p>	<p>AQUAMEM-4</p>	<p>1</p>	<p>1</p>	<p>2</p>	<p>2</p>	<p>2</p>	<p>2</p>	<p>2</p>
<p>Flow at 15° C :</p> <p>Clean water :</p> <p>Underground water:</p> <p>Surface water:</p>	<p>1 m<sup>3</sup>/h 0,7 m<sup>3</sup>/h 0,5 m<sup>3</sup>/h</p>	<p>AQUAMEM-4</p>	<p>1,5 m<sup>3</sup>/h 1 m<sup>3</sup>/h 0,75 m<sup>3</sup>/h</p>	<p>2 m<sup>3</sup>/h 1,4 m<sup>3</sup>/h 1 m<sup>3</sup>/h</p>	<p>3 m<sup>3</sup>/h 2 m<sup>3</sup>/h 1,5 m<sup>3</sup>/h</p>	<p>4 m<sup>3</sup>/h 2,8 m<sup>3</sup>/h 2 m<sup>3</sup>/h</p>	<p>4,5 m<sup>3</sup>/h 3,1 m<sup>3</sup>/h 2,2 m<sup>3</sup>/h</p>	<p>6 m<sup>3</sup>/h 4 m<sup>3</sup>/h 3 m<sup>3</sup>/h</p>	<p>8%–18%–18%</p>
<p>Water loss : (depending of the raw water)</p>	<p>5%–12%–18%</p>	<p>AQUAMEM-4</p>	<p>5%–12%–18%</p>	<p>8%–18%–27%</p>	<p>8%–18%–27%</p>	<p>8%–18%–27%</p>	<p>8%–18%–27%</p>	<p>8%–18%–27%</p>	<p>8%–18%–27%</p>
<p>Fittings :</p> <p>Raw water :</p> <p>Treated water :</p> <p>Waste :</p>	<p>PVC OD 32 PVC OD 32 PVC OD 32</p>	<p>AQUAMEM-4</p>	<p>PVC OD 32 PVC OD 32 PVC OD 32</p>	<p>PVC OD 32 PVC OD 32 PVC OD 32</p>	<p>PVC OD 32 PVC OD 32 PVC OD 32</p>	<p>PVC OD 40 PVC OD 40 PVC OD 40</p>	<p>PVC OD 40 PVC OD 40 PVC OD 50</p>	<p>PVC OD 40 PVC OD 40 PVC OD 50</p>	<p>650 w</p>
<p>Power :</p> <p>(230v–50 Hz–1 P+N+T)</p>	<p>650 w</p>	<p>AQUAMEM-4</p>	<p>650 w</p>	<p>650 w</p>	<p>850 w</p>	<p>850 w</p>	<p>850 w</p>	<p>850 w</p>	<p>1200 w</p>
<p>Dimensions (LxIxm) mm :</p>	<p>1100x900x1150</p>	<p>AQUAMEM-4</p>	<p>1250x900x1250</p>	<p>1100x1050x1150</p>	<p>1250x1050x1250</p>	<p>1600x1150x1250</p>	<p>1900x1150x1500</p>	<p>2300x1250x1500</p>	<p>2300x1250x1500</p>
<p>Tank volume :</p> <p>Raw water :</p> <p>Treated water :</p>	<p>100l 100 l</p>	<p>AQUAMEM-4</p>	<p>100 l 200 l</p>	<p>100 l 100 l</p>	<p>150 l 200 l</p>	<p>150 l 200 l</p>	<p>200 l 300 l</p>	<p>200 l 300 l</p>	<p>200 l 300 l</p>

## AQUAMEM PICTURES

