



DESALINATION SYSTEM

Model AV-WDS 1000K GPD, (International Aqua-Mem, Inc)

The containerized system is designed for 3,780 m³ per day (1,000,000 US gallons per day) capacity of high quality drinking water. The unit can be designed for 1,000, 2,000 or 3,000 m³ per day.

The designed recovery ratio is 33 % The concentrate flow rate is 7,560 m³ per day (2,000,000 US gallons per day).

Each system will be completely independent from the other system modules and fully capable of functioning individually.

Each container unit will house 48 vessels each holding 6 elements. For redundancy, the 3,780 m³ per day system inside the container will have 3 individual trains of 16 vessels each fed by 3 individual pumps and 3 individual power recovery turbines systems. This will allow the operator to work on a section of the machine without shutting down the entire machine.

To minimize maintenance, special multi-stage high efficiency pumps are used for pumping the water, capable of 24-hour operation in hostile environments.

Each pump motor will have a variable frequency drive, which will drastically reduce electrical consumption and allow the operator to adjust the pump's discharge pressure by adjusting the motor's revolution rate rather than throttling the pump discharge. Production can be adjusted after consumption and available energy during the day.

Along with the container, a SCADA (Supervisory Control And Data Acquisition) system will be provided. This SCADA system will be connected to the container and will allow the operator to track the system's vital information from a central office. Furthermore, the computer will print a daily report documenting the system performance parameters, quality of produced water, and amount of water produced. The operator can also control the systems from the central computer.